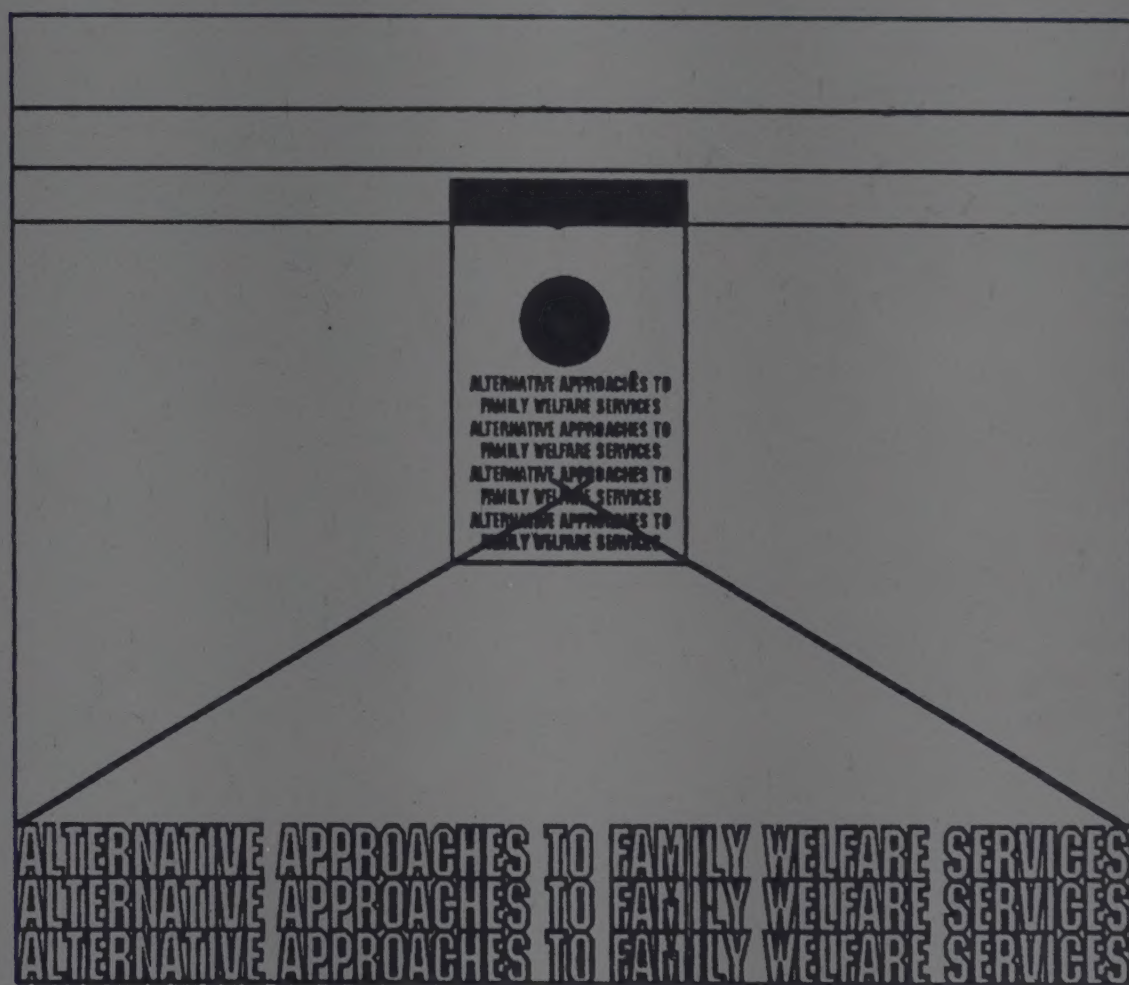


# **ALTERNATIVE APPROACHES TO FAMILY WELFARE SERVICES**

(Based on National Seminar held during July 29 - 31, 1992, Bhubaneswar)



**DEPARTMENT OF HEALTH & FAMILY WELFARE  
GOVERNMENT OF ORISSA  
AREA DEVELOPMENT PROGRAMME ( UK AID )  
AND  
BRITISH COUNCIL DIVISION**

January 1993



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AREA DEVELOPMENT PROGRAMME (UK AID) GOVT. OF ORISSA  
&  
BRITISH COUNCIL DIVISION**



# ALTERNATIVE APPROACHES TO FAMILY WELFARE SERVICES

(Based on National Seminar held during July 25-31, 1983)





**SHRI BAIRAGI JENA**

MINISTER

Health & Family Welfare

Government of Orissa.



Tel: 400830 (O)  
403349 (R)

Dated 02 Aug '92

## FOREWORD

Population explosion is a serious threat to India especially a developing State like Orissa. Therefore, there is an urgent need for all of us to revamp and restructure our system and approaches for effective delivery and utilisation of family welfare services.

The seminar on "*Alternative approaches to family welfare services*" is a timely one to address our need. I congratulate the efforts taken by Area Development Programme and British Council Division in providing new dimensions for ensuring quality and coverage for family welfare services.

I am confident that the recommendations of the seminar will be translated into definite action plans to improve the delivery system. I assure all cooperation in this exercise which will benefit the State and weaker section of the population.

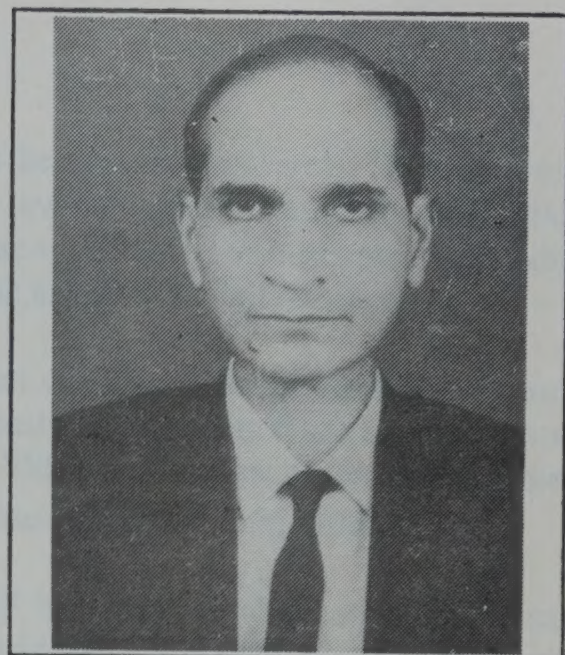
(Shri Bairagi Jena)







**RAMAKANT MISHRA, I.A.S.**  
DEPUTY CHAIRMAN  
ORISSA STATE PLANNING BOARD  
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Telephone : Off. 408698



The British Council Division, Orissa, with the active collaboration of the Health & Family Welfare Deptt. of the State Govt. of Orissa and the Ministry of Health & Family Welfare of the Union Govt. of India organised a **National Seminar on the Alternative Approaches to the Family Welfare Services Delivery System** on 29.7.1992 in Hotel Swosti at Bhubaneswar.

2. The seminar was attended by some of the eminent medicos, demographers, scientists and administrators in the field from the different States all over the country. It was inaugurated by the Hon'ble Minister Health & F.W. Orissa **Sri Bairagi Jena** and was chaired by **Mr. Ian Pett**, First Secretary, British Council Division, New Delhi.
3. A number of useful suggestions and recommendations were made by the participants in the Seminar, while analysing the explosive population problem of the Country. This included family counselling, particularly to the newly-wed and the productive age group and for door-to-door services, in both the rural and the urban areas.
4. Inter alia, it was viewed that the Family Welfare Services is not the responsibility of the Deptt. of Health & FW alone. It largely depends on the intersectoral coordination with education, nutrition and social-welfare activities of the concerned Departments. Inter-linking of these various services at the grass-root level, with the active support of the Block and the District level Administration is very much necessary for the success of the Family Welfare Programme. The ultimate objective is to ensure a populace balance along with Child survival and Child spacing and Couple protection.
5. Community awareness and participation in the FWP was considered as very crucial and it was suggested to transform the FWP into a people's movement rather than a conventional Government sponsored Programme. It is, therefore, necessary to explore all possible ways to ensure Health Promotion and Social Mobilisation for meeting the increased demand of HW Services, which are also to be met with quality care and with extensive & intensive coverage.
6. It was felt that there is need to introduce innovative ideas like social-marketing. Free supplies and services tend to weaken the F.W. services. It is the right time to focus attention towards social-marketing and involvement of the Non-Governmental Organisations in these efforts.
7. We are happy that the deliberations of the Seminar and their recommendations are being brought out in print. It is hoped that the compilation would be useful to the Family Welfare Administration in the State and as well as in the Country.

( R.K. Mishra )







## Editor's Note

Orissa is one of the States which represents a poor health status especially in the rural and tribal areas. The reasons may be many-inadequate infrastructure facilities, lack of trained manpower, low demand generation for basic health services, etc. The current Crude birth rate at 30/1000 and Infant mortality rate at 122/1000 live births present a gloomy picture about the overall health system development and provision of basic health and family services.

Overseas Development Administration U.K., is assisting the Government of Orissa through Area Development Programme since 1980 providing support for strengthening the physical infrastructure, human resource development, health information system and health promotion and social mobilization. This project is one of the longest project financed by ODA in the world. The total cost of the project (including Phase-I) is about £35 million.

Government of India through assistance from World Bank and UNICEF launched the Child survival and safe motherhood project from 1991 onwards. This project aims to ensure the Child survival thereby playing a major role in averting the infant deaths which will be one of the critical areas as far as Orissa is concerned.

Area Development Programme on the other hand through strengthening the physical infrastructure, human resource development, health information system and health promotion and social mobilization, provides support for population stabilization with special focus on quality care for permanent acceptors and promoting Child spacing methods falling in line with Child Survival -- Child Spacing -- Couple Protection. With the joint efforts of ADP and CSSM, it is expected that Orissa will give a better picture in health and population scenario in the coming years.

With this backdrop, Area Development Programme in collaboration with British Council Division had organized a 3 days seminar on "*Alternative approaches to family welfare services*". The seminar was structured to address all the areas which will play vital role in the promotion and delivery of family welfare services. The policy and the strategy paper by Ministry of Health & Family Welfare, Govt. of India, provided the direction followed by technical papers on "Impact of Child Spacing on infant and maternal mortality and the Contraceptive technologies" available in India.

The technical papers on social marketing provided a new insight in the demand generation for contraceptives which will certainly improve the utilization. The technical paper on community based contraceptive distribution system provided the scope for involving the community in promotion and upgradation of contraceptive utilization.

The paper on involvement of Non-Government Organization in promotion and mobilization of support for family welfare services provided scope for appropriate involvement of NGOs not only in promotion activities but also in the service delivery.

Thus the seminar provided wide spectrum of approaches which could be incorporated in the existing system for ensuring quality and coverage. It is gratifying to note that many of the recommendations of the seminar have been translated into action plans by Government of Orissa.

I am grateful to Hon. Minister for Health, Govt. of Orissa, and Dy. Chairman State Planning Board & Secretary, Health & FW, Govt. of Orissa for their encouragement and support. I thank all the technical experts who travelled from long distances to share their views and experiences for developing a need based programme for effective family welfare services in Orissa.

I place on records the excellent support and co-operation rendered by the Project Director, Area Development Programme and his team members and my staff members, in the successful conduct of the seminar.

Sd/-  
Dr. M. R. Bhupathy  
[Adviser Health]







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## **EXECUTIVE SUMMARY**

- \* BACKGROUND**
  - \* OBJECTIVES**
  - \* STRUCTURE**
  - \* RECOMMENDATIONS**
-



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## 1. EXECUTIVE SUMMARY

### 1.1. BACKGROUND OF THE SEMINAR :

1.1. During the decade 1980 - 90, Govt. of India emphasised on strengthening the primary health care network so as to enable the state health system to provide basic Health and Family Welfare Services which could be accessible and acceptable by the community and affordable by the Government.

1.2. Government of India developed the model plan for Area Development Programmes to strengthen the physical infrastructure, training and manpower development, health education, health information system and alternative approaches to health care delivery system. Overseas Development Administration, Government of UK, is providing the technical and financial assistance to the Area Development Programme in the state of Orissa since 1980.

1.3. Orissa is extremely vulnerable in terms of high infant mortality rate, high fertility, static birth rate. The 1991 census reveals that Orissa's population growth rate is very marginally low than the National average. But this is not the situation for complacency as the other health and demographic indicators pose serious concern. Infact, demographic misery is intense in Orissa.

1.4. Over these years the stress has been on permanent sterilisation, especially of the mothers. The targets and achievements do not actually relate any significant improvements in the health status of the community. Now, Government of India lays special emphasis on child spacing methods and on young mothers and adolescent girls rather than "exhausted mothers".

1.5. Government of Orissa, Area Development Programme and British Council Division have critically analysed these issues and proposed to organise a 3 day seminar to learn the experiences of Indian experts and to develop strategies to strengthen the child spacing methods. The seminar was organised during 29-31 July 1992 at Bhubaneswar.

### 1.6. Objectives :

- \* To share the experiences and technologies in strengthening the child spacing methods.
- \* To understand the concept and approaches of social marketing and community based contraceptive distribution system.
- \* To develop strategic plans based on the guidelines provided by the Govt. of India to streamline and strengthen the family welfare services with special focus on child spacing.

### 1.7. Structure :

1.7.1. The seminar was structured to address the specific needs on the series which would be to develop approaches for effective delivery of family welfare services relevant for Government of Orissa.

#### Issues :

- \* Significance of both spacing for Maternal and Infant Mortality.
- \* Availability of alternative methods and technology for child spacing.
- \* Approaches to social marketing in contraceptive methods.
- \* Involvement of Non Governmental Organisations in the promotion of community based contraceptive distribution system.

1.7.2. Technical papers prepared by experts in health and population programmes were discussed in each session and recommendations are recorded for the final report.



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## 1.8. Recommendations :

1.8.1. It was agreed that planning should be done for each district taking into consideration of existing infrastructural facilities and socio-cultural practices, instead of centralised planning, stratification of the districts (if possible for the blocks) should be made based on :

- \* Female literacy
- \* Age at marriage of the female
- \* Employment status of women.
- \* Prevailing couple protection rate (Couples with 3 children are only counted)
- \* Crude birth rate
- \* Infant mortality rate.

ADP/BCD will provide support for the collection of the information through the field functionaries. The other sources of information will be from --

- \* CENSUS 1991
- \* Sample Registration Scheme.
- \* Baseline & Endline surveys of ADP
- \* Special studies by Govt. of Orissa/NGOs/Govt. of India
- \* National Family Health Survey, 92-93.

1.8.2. The allocation of resources should be again based on the area specific plans instead of present practice of centralised and uniform approaches.

1.8.3. Health promotion and social mobilisation should be based on the local needs and should be done through an organised women's group in the villages with support from the health, education and nutrition functionaries. Govt. of Orissa should provide appropriate IEC materials on spacing methods.

1.8.4. Govt. of Orissa should evolve an integrated approaches for human resources development taking into consideration of the special projects like ADP / C.S.S.M. and ICDS to avoid overlapping and duplication of efforts. By this integrated approaches, the field functionaries will be provided with adequate skills and competencies to improve the quality and coverage of services.

(e.g.) Intensive Training to MPHWS & HAs (F) in child spacing techniques.

1.8.5. \* Special attention should be focused on the young mothers for the promotion of child spacing. The continuous availability of Oral Pills and IUDs should be ensured.

\* Introduction of weekly pills (centchromen) and Oral pills (Mala N & D) should be encouraged.

\* The new range of contraceptives like Norplans 6 and injectables should be introduced initially under central trials, followed by large scale application.

1.8.6. As the free distribution schemes are usually wastage prone, the seminar emphasised strongly the introduction of social marketing of contraceptives through available agencies in India. Govt. of Orissa could learn these marketing strategies by working with them and other essentials like ORS / DDK / IFA could be socially marketed in a phased manner.

1.8.7. The seminar strongly favoured the involvement of NGOs to support the Government's efforts in family welfare services especially in the area of community based contraceptives distribution system.

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1.8.8. The seminar very strongly recommended that innovative schemes should be introduced to strengthen the demand generation and quality care.

(e.g.)\* Health promotion and social mobilisation initiatives should be from non-health sectors like NGOs/MSS/Education.

\* Involvement NGOs in taking over health and family welfare service delivery in the areas where the reach of Govt. is poor.

## **Recommendations being converted to action plans for implementation**

### **Social Marketing Project**

With ODA's assistance, social marketing project has been formulated for the State of Orissa. The project is expected to be launched during early 1993.

### **Community based Contraceptive Distribution System Project**

Area Development Programme, supported by ODA assistance, has invited a comprehensive proposal for the district of Balasore (one of the 90 backward districts) from Parivar Seva Sanstha (Marie Stopes International). PSS has submitted their proposals and it is under consideration of the Government of Orissa.

### **Swasthya Sangram Movement**

"Fight for Health" has been initiated by Area Development Programme and health promotion and social mobilisation aspects have been dove-tailed with Total Literacy Campaigns and Mahila Swasthya Samitis at village level.

### **Health Human Resource Development**

Department of Health & F.W. and Area Development Programme have prepared a document on training & system development for human resources based on the health priorities "Panch Sheel"

- Population
- CSSM
- Malaria
- Diarrhoea
- TB/Leprosy/Other Communicable diseases

### **Zilla Swasthya Samiti**

Area Development Programme is in the process of establishing Zilla Swasthya Samiti for population programmes in Orissa for localised district planning & financial feasibility.



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# FRAMEWORK FOR ALTERNATIVE STRATEGIES

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## THEME PAPER

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**DR. M.R. BHUPATHY**

ADVISER HEALTH

**MS. ALISON DEMBO RATH**

Asst. Health Officer

**British Council Division**

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## 1.0 INTRODUCTION

### 1.1 Location :

The State of Orissa extends from 17°.49' - N to 22°.34'N latitude and from 81°.28' - E to 87°.29'E longitude in the eastern coast of India.

### 1.2 Area & Population :

The State of Orissa has 4.74% of the total land area of India which is 155,707 sq.km. and accounts for 3.73% of the country's total population i.e. 31,512,707 comprising of 15,532,166 females and 15,979,904 males according to 1991 census figures.

The population density is comparatively low i.e. 202 sq. km compared to 267 sq km at the national level. The state has 13 districts with population ranging from 4.6 million (Cuttack) to 0.85 million in Phulbani. Orissa is one of India's less developed states with 42.8% population living below the poverty line. The literacy rate is 34.40% (Males 62.37% and females 34.40%). The literacy rate among the districts ranges from 54.35% in Puri district to 18.69% in Koraput district. The female literacy rate among the districts ranges from 42.79% in Puri district to 10.97% in Koraput district. More than one third of the population consists of scheduled tribes and castes (37%).

### 1.3 Accessibility :

The coastal districts of Ganjam, Puri, Cuttack and Balasore are well connected but the interior districts of Koraput, Kalahandi, Keonjhar and Phulbani have difficult terrains. Almost 30% of the area is still not accessible by road and transport which implies that our uniform pattern of population programmes need to be revised according to the needs of the area - rather the focus should be "area specific".

### 1.4 Development of Health Sector :

During the past 10 years, there has been rapid and significant improvement in health infrastructure especially in the area of primary health care through the ODA -- Assisted Area Development project and UNICEF. ODA - ADP covers 10 out of 13 districts for physical infrastructure and the entire state for human resource development, Information education and communication and Management Information System and Operational Research (OR) studies. The World Bank suggested Child Survival and Safe Motherhood programme is being launched through UNICEF and Govt. of India in all the districts in a phased manner. The World Bank supported ICDS-Nutrition project is in operation in 194 blocks out of 314 blocks of the state. DANIDA is taking care of Leprosy and drinking water projects. In addition, international voluntary agencies like OXFAM, CARE, Save the Children Fund and Lepira are operating in selected areas in health care. Though on paper, the assistance comes from different sources, so far there has been no attempt to organise a coordinated approach to pool all these resources, and to channelise the health and population programmes so that they reach the beneficiaries effectively

### 1.5 Health Infrastructure :

1.5.1 As a result of the assistance from State and Central Governments and external donor agencies like ODA, World Bank, UNICEF and DANIDA, there is a tremendous development of physical infrastructure and health manpower at different levels of primary health care in the state.



1.5.2 The TABLE I provides the information on the availability of the health care facilities in the State.

TABLE I

SL.No.	NATURE OF HEALTH FACILITY	NUMBER
1.	HEALTH SUB CENTRES	5927
2.	PRIMARY HEALTH CENTRES	968
3.	COMMUNITY HEALTH CENTRES	314
4.	SUB-DIVISIONAL HOSPITAL	37
5.	DISTRICT HOSPITAL	14

Total Medical Institutions including urban areas = 1520

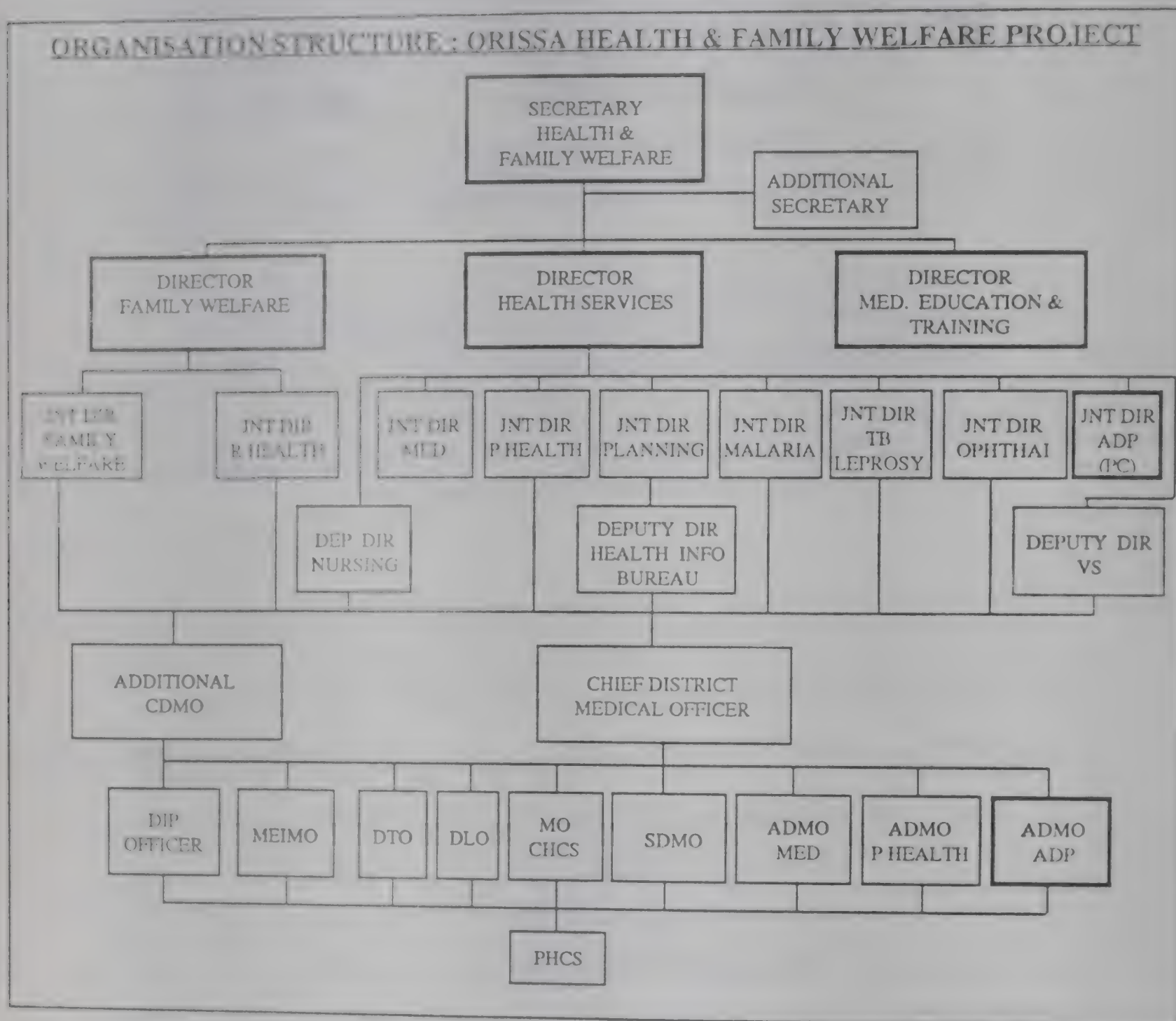
1.5.3 The TABLE II provides information on the availability of trained health manpower in the state with particular reference to primary and secondary health care.

TABLE II

SL.NO.	CADRE OF MANPOWER	NUMBER
1.	HEALTH WORKERS (F)	6924
2.	HEALTH WORKERS (M)	4200
3.	HEALTH SUPERVISORS (F)	1023
4.	HEALTH SUPERVISORS (M)	1100
5.	STAFF NURSES	2030
6.	BLOCK EXTENSION EDUCATORS	315
7.	DOCTORS	2842
8.	GRADUATE ADMINISTRATORS	250
9.	POST GRADUATE ADMINISTRATORS	280

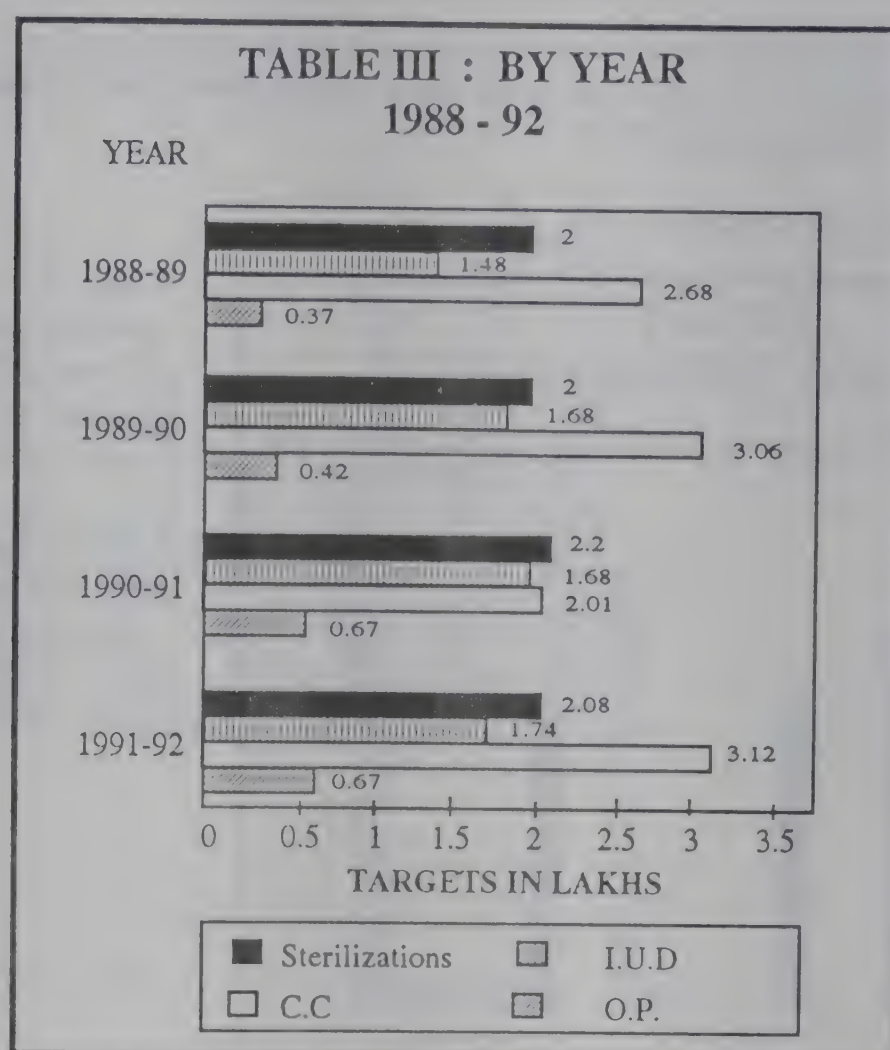
## 2.0 STRUCTURE & PERFORMANCE

The flow chart below presents the structure of the Department of Health and Family Welfare.

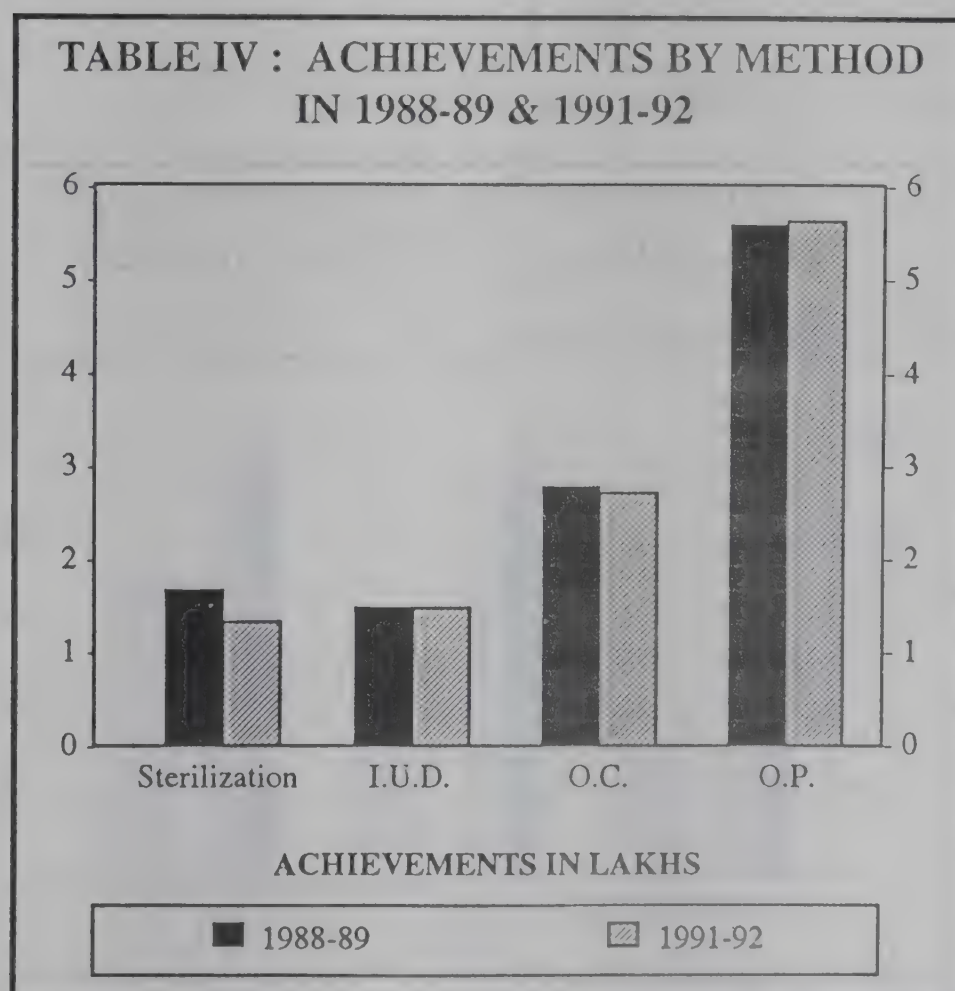




2.1 The targets for spacing methods show an upward trend since 1988-89 although sterilization remains almost constant (TABLE III).



2.2 Targets have increased, but actual achievement for each contraceptive method has remained almost static, as TABLE IV below shows.



This evidence, plus the fact that for conventional contraceptive and oral pills, the targets are regularly exceeded, suggests that target setting has had little impact on contraceptive achievement.

### 3.0 STUDIES AND SURVEYES

Direct influences on fertility include age of marriage, the extent and duration of breastfeeding, abortion and use of contraception. Modern contraception is by far the most important direct influence on fertility change in developing countries (as shown in Appendix 1).

#### 3.1 Contraceptive Prevalence :

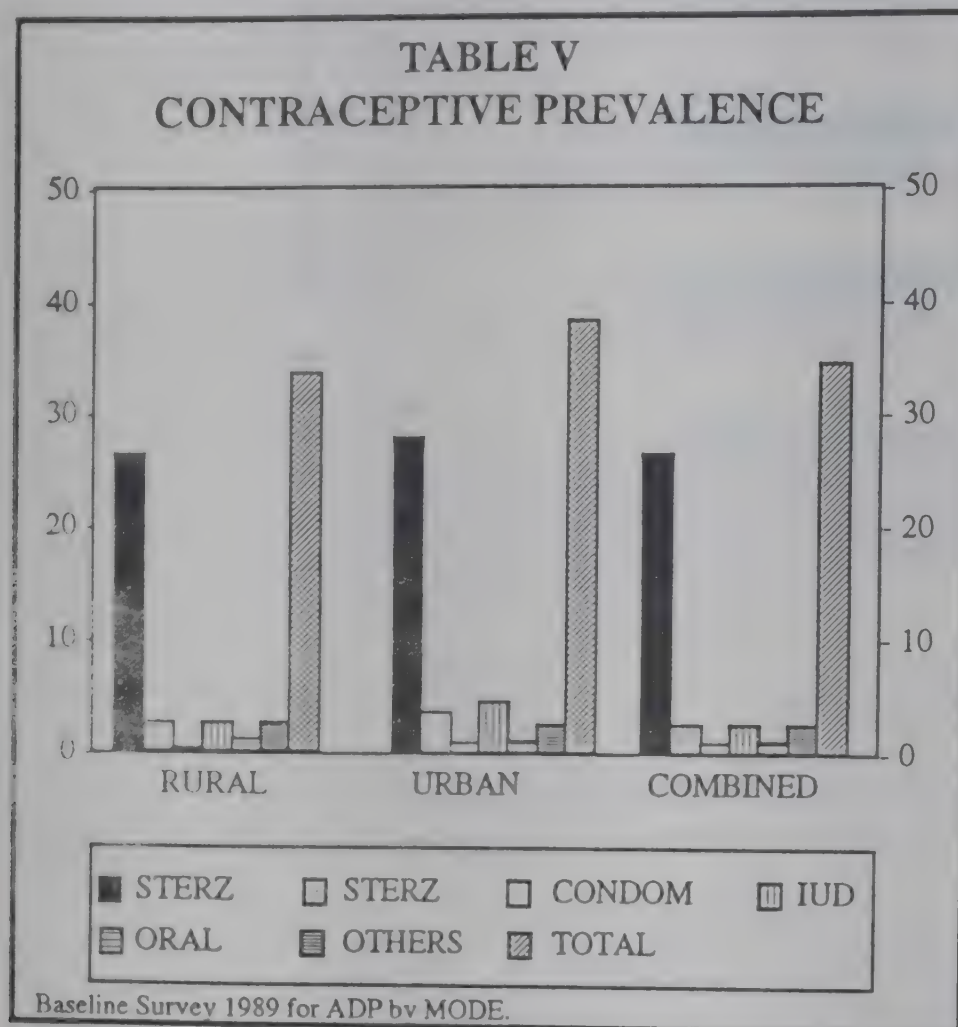
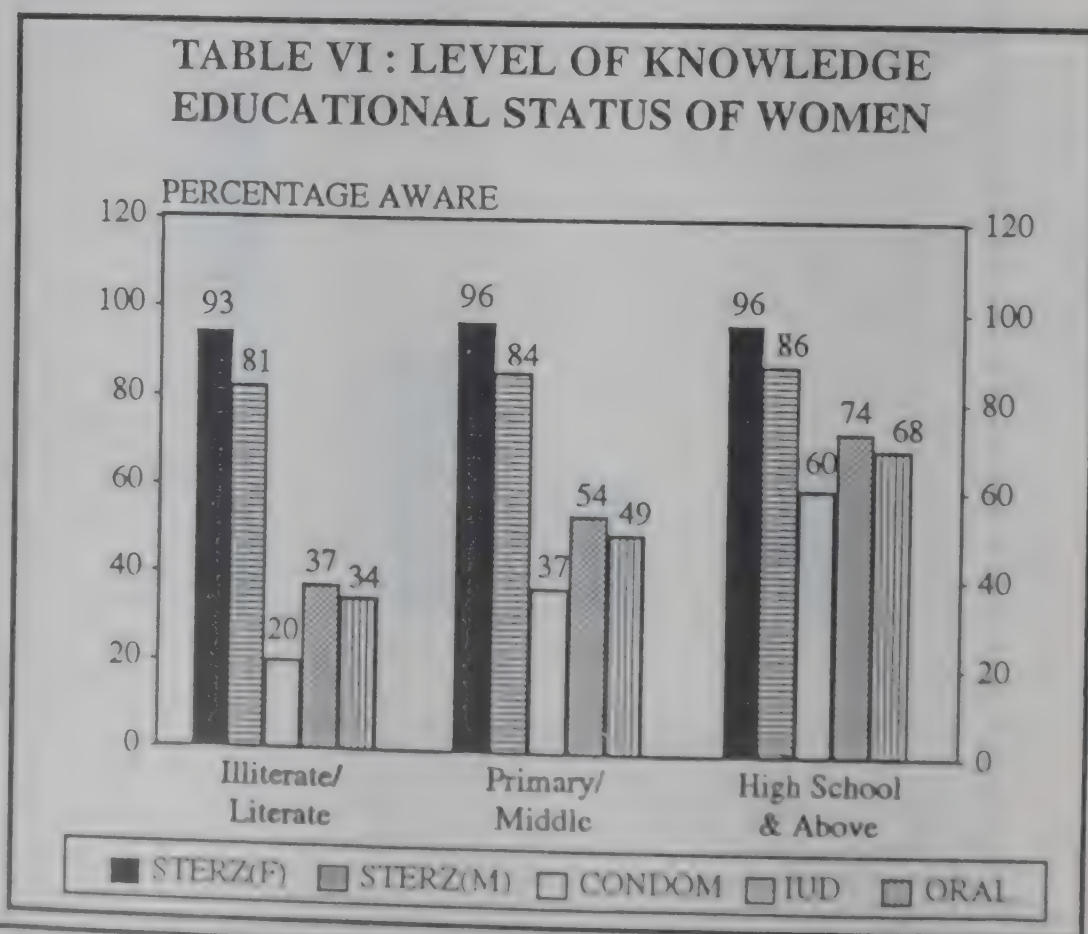


Table V shows the percentage currently using contraceptives, by the different methods amongst the couples between 15-49 of years age, in five districts of Orissa.

It is clear from the Table that only 34% of couples are covered by any form of contraceptive method, and of these, the vast majority is attributable to female sterilization.

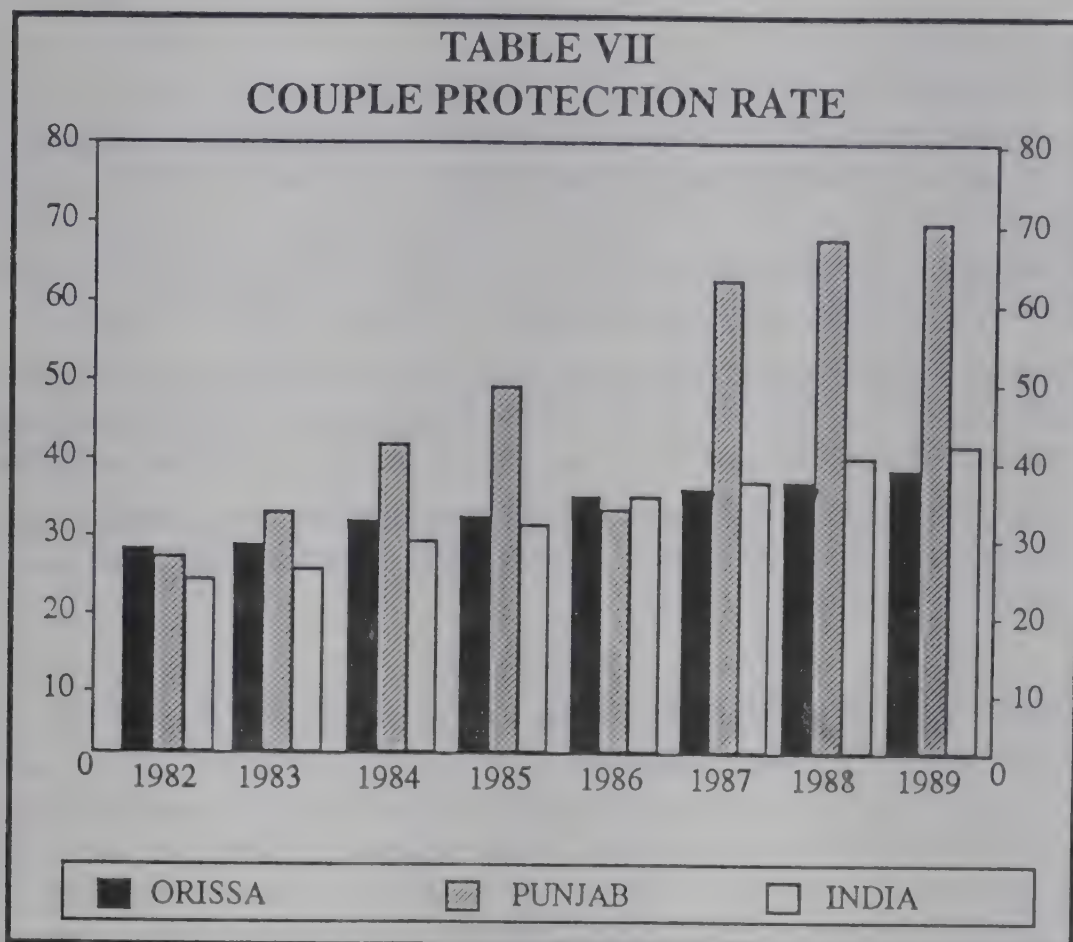
#### 3.2 Level of Knowledge :

These figures on actual use of contraceptive methods contrast sharply with levels of knowledge about the different methods reported in the same survey. Regardless of the educational status of the female respondents, over 90% knew about female sterilization and more than 80% were aware of male sterilization. Knowledge about spacing methods were much lower and showed a significant educational bias (TABLE VI).





### 3.3 Trends in Contraceptive Prevalence :



The data collected through the State Registration System (SRS) is not directly comparable with MODE data (e.g. different age bands used) but examination of SRS figures gives us an idea of the direction we are moving in. TABLE VII shows the trend in the couple protection rate (the percentage of married couples between 15-44 years who have accepted sterilization or are currently using a spacing method).

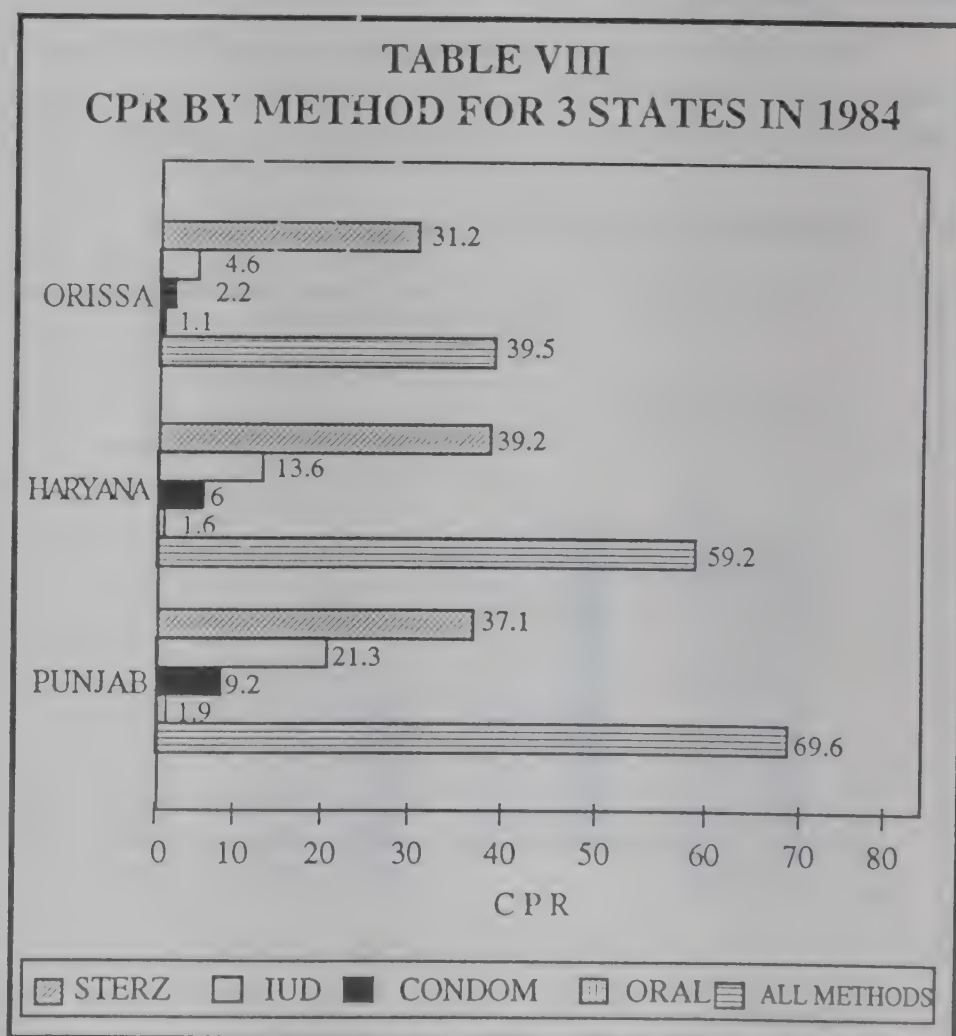
The Government of India has set a goal of 60% effective couple protection rate in Orissa to be achieved by 1996-97.

### 3.4 Comparison with High Performance States :

Relative to other states Orissa had made slow gains in its couple protection rate. It is interesting to note that the states which have made the greatest gains are those in which a higher percentage of couples are now protected by spacing methods.

Comparisons between states should be put in context of the population to be covered, cultural diversity between and within the state and the political, social and economic environment. For example the population living below the poverty line is 13.8% and 15.6% in Punjab and Haryana respectively, compared with 42.8% below the poverty line in Orissa (1983-84 data from India's Population Demographic Scenario 1990 DOH & FW GOI). The female literacy rates are 49.72 in Punjab, 40.94 in Haryana and 34.40 in Orissa (1991 data from Bose, Demographic diversity of India).

Despite these differences in socio economic indicators, the figures suggest that if gains are to be made in contraceptive prevalence, this will only be achieved through increased use of spacing methods. China is an example of a developing country where contraceptive prevalence is in the range of 70-74 percent, of whom 50 percent use IUD (World Population Trends and Policies, 1987 monitoring report, United Nations).





### 3.5 Quality of Services :

#### 3.5.1 Sterilization

Surveys which have asked about satisfaction with female sterilization have met in general with a positive response. The MODE survey found more than 80% of women from Phase-I project districts were satisfied. An indepth study of contraceptive carried out in 1985 found that when others sought advice from them about sterilization, 82% of the respondents advised in favour and only 6% against, which is a good indication of satisfaction (Cleveland 1985). Despite this overall satisfaction most women report some side effects from the operation and in the Cleveland study 30 percent sought treatment from Government health services.

The same survey found that treatment of beneficiaries at the time of operation and in the first post-operative week followed the recommended procedure. Of particular note 90 percent of acceptors were visited at home in the first week. The MODE survey reported rather lower follow-up visits in the range of 50 percent visited.

The failure rate was low (about 2 percent for laparoscopy and one percent for other tubectomy). It is interesting to note that of the 48 women who reported pregnancies after the tubectomy (out of total 1685 tubectomies), 20 were already pregnant at the time of operation !

#### 3.5.2 IUD

Cleveland's study on contraceptive acceptance reveals several problems with use of IUDs. Firstly at the end of twelve months, less than fifty percent of women were still using the IUD in the rural sample. This compares with 62 percent amongst the urban population. Secondly, after removal or expulsion, few rural clients have undergone re-insertion or have switched over to another method. Finally he found evidence of widespread exaggeration of numbers of acceptors reported by ANMs and LHVs. Thus if IUD is to become a realistic means of family planning in Orissa, great detail must be paid both at the time of insertion and support given to women in the period afterwards, given that almost one quarter of rural users stopped within a month of insertion.

### 3.6 Demand for Children :

The ideal number of children described by the majority of married women (rural) is greater than two, and varies within the social groups.

An indepth survey of 1500 families in five districts of Orissa found that amongst families with three or more children, the reasons given for preferring more than two children were, firstly need for labour within the family, then the desire for boys, security in old age and strengthening of the family bond (CFDRT, 1991).

### 3.7 Demand for Family Planning :

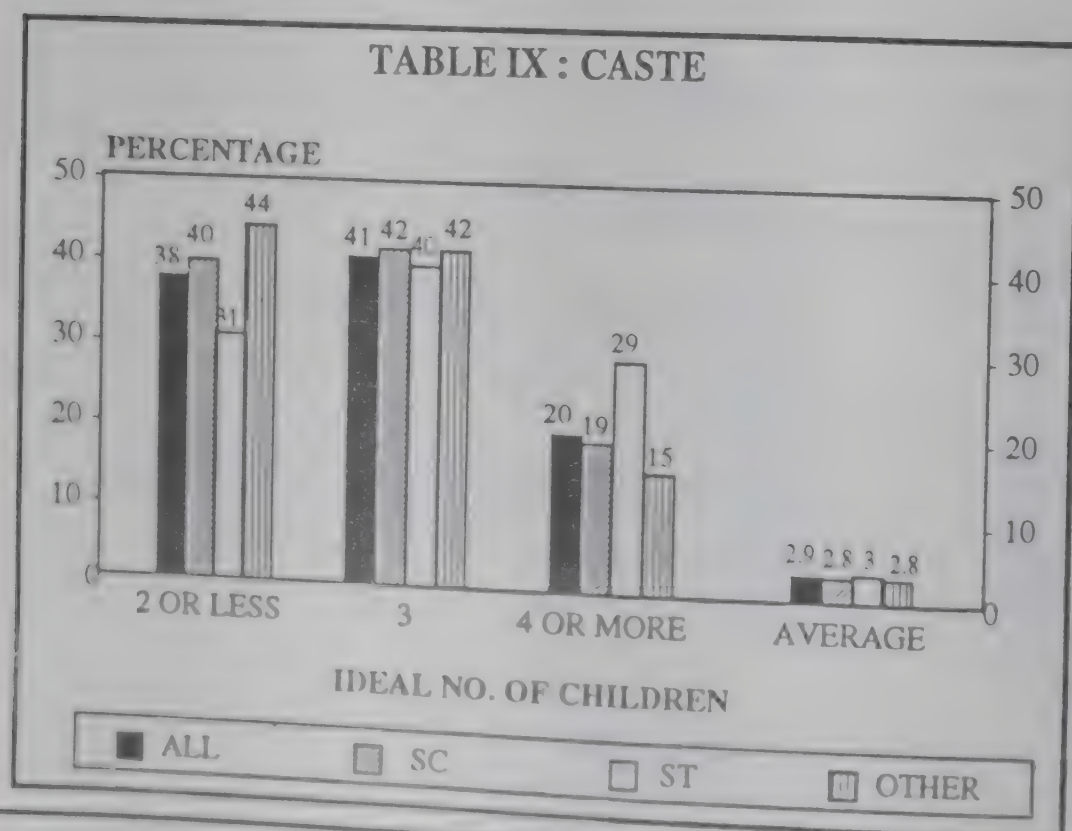


Table IX shows that nearly 80% of women regard three or less children as the ideal family size. However the average number of surviving children at the end of a woman's reproductive period is four (MODE 1989). This suggests that there is an unmet demand for contraception. This is supported by evidence from the same survey that almost 80% of never-users of contraception had not been visited by a health worker.

Source : MODE 1989.



## 4.0 EXPENDITURE ON HEALTH & FAMILY WELFARE

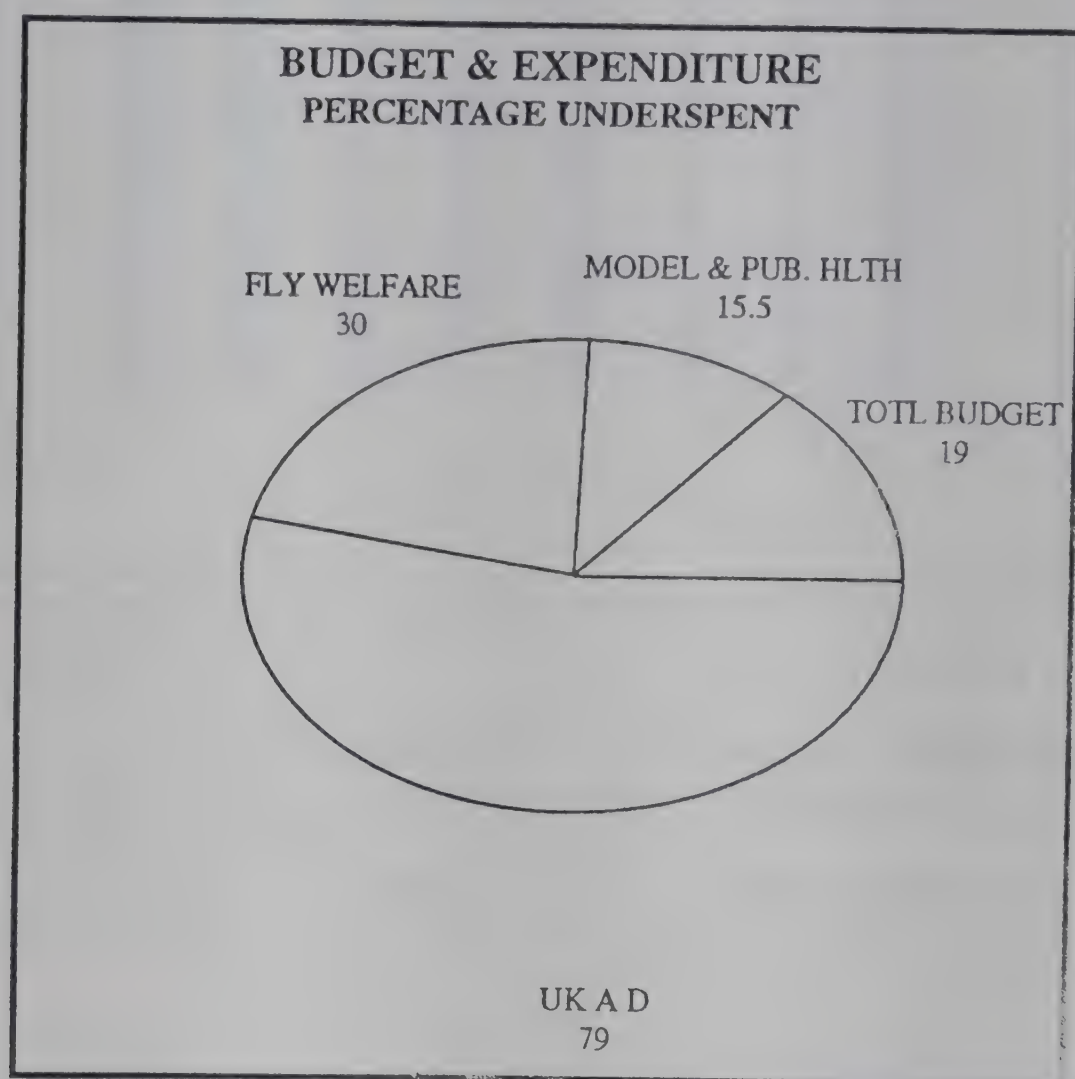
Budget 1991-92                      --              Rs.1,835,779 thousands

[Exclusive on non-UK Aid construction, repair and maintenance;  
inclusive of UK Aid construction but not repair and maintenance]

Medical & Public Health	--	Rs.1,331.043 thousands	--	% of total 72.5
Family Welfare 1991-92	--	Rs. 378,706 thousands	--	% of total 20.6

These are two major budget components. The other heads include capital outlay, aid material, secretarial, social services and loans.

There is a considerable variance between budget and expenditure. The last year for which figures are published is the year ending 1990.



The Plan Budget tends to be underspent, one of the reasons being belated arrival of funds from Central Government.

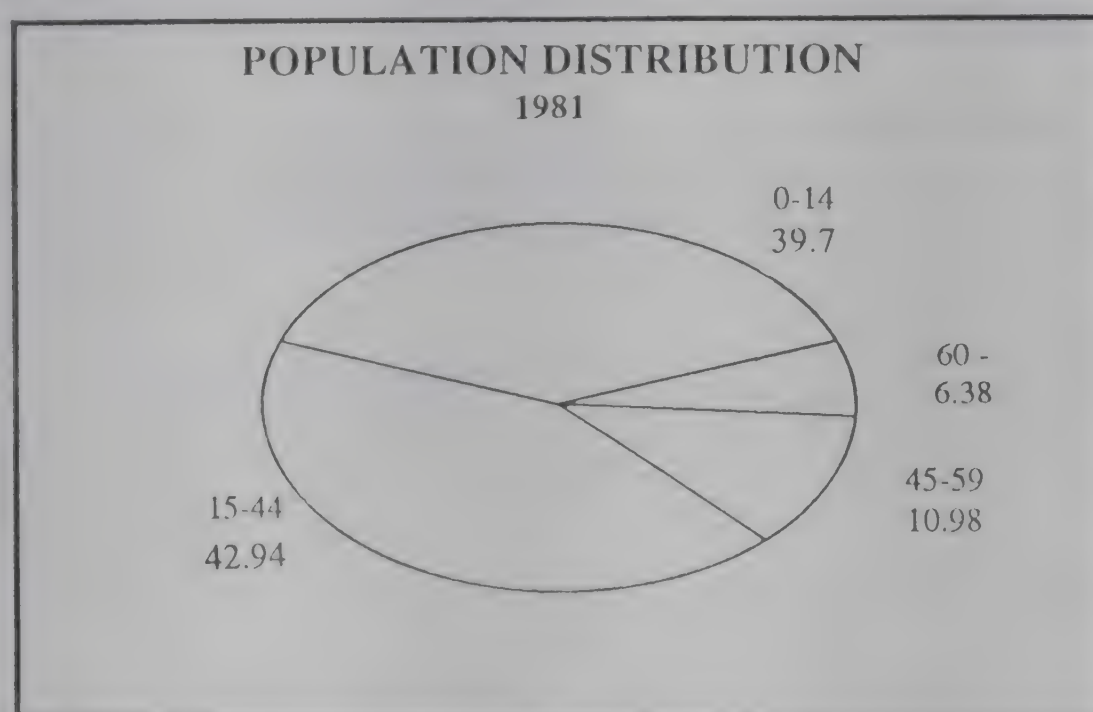
Current per capita health expenditure by Government is Rs.58/- (based on 1991-92 Health and Family Welfare Budget estimate).

## 5.0 FERTILITY TRENDS IN ORISSA

### 5.1 Population Profile, 1991 :

POPULATION	:	31,512,070
DECINNIAL GROWTH RATE (1981-1991)	:	+ 19.50
DENSITY (PER SQ.KM)	:	202
SEX RATIO	:	972
URBAN POPULATION	:	13.43%
LITERACY RATE (TOTAL)	:	48.55
LITERACY (FEMALE)	:	34.40

### 5.2 Population Distribution (1981 Data) :



### 5.3 Mortality Indicators :

INDICATOR	
CRUDE DEATH RATE	12.6 (1989 SRS)
INFANT MORTALITY RATE	122 (1989 SRS)

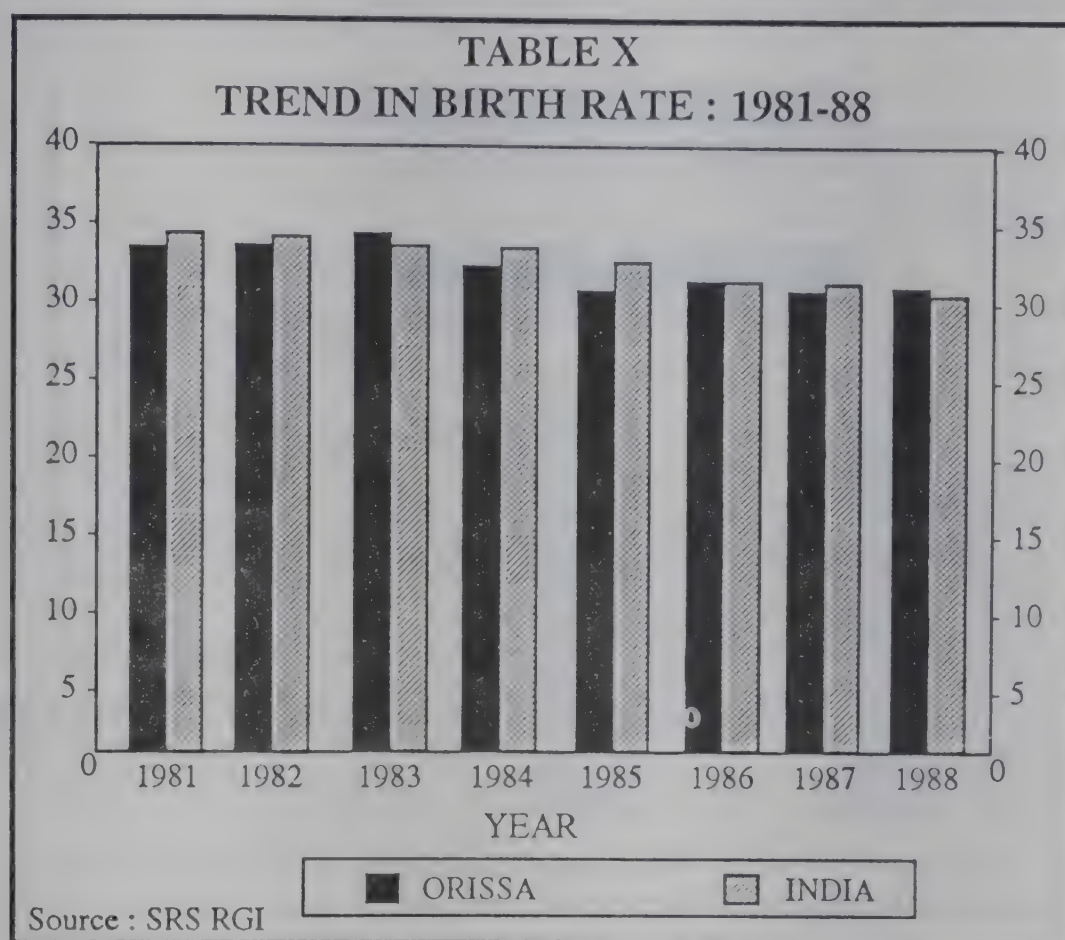
### 5.4 Fertility Indicators :

INDICATOR	
CRUDE BIRTH RATE	30.2 (SRS 1989)
GENERAL FERTILITY RATE	135.7 (GOI 1987)
TOTAL FERTILITY RATE	4.3 (GOI 1987)
TOTAL MARITAL FERTILITY RATE	5.2 (1987)



## 5.5 Trend in Birth Rate :

The crude birth rate (CBR) is the most commonly used measure of fertility. In line with the rest of the states in India, the birth rate in Orissa remained static at about 34 births per thousand population for 7-8 years upto 1984, since when it has begun to show a decline. The early resistance to change may have been a result of the majority of family planning acceptors being in the older age groups with high parity levels (India's Population Demographic Scenario 1990 GOI).



## 5.6 Age Specific Fertility Rate :

The age specific fertility rates shows that fertility is highest in the age group of 20-24 years, with only a marginal fall in the 25-29 age group. This pattern is in common with most of the states and one that has shown little change over the last 20 years (SRS, RGI).

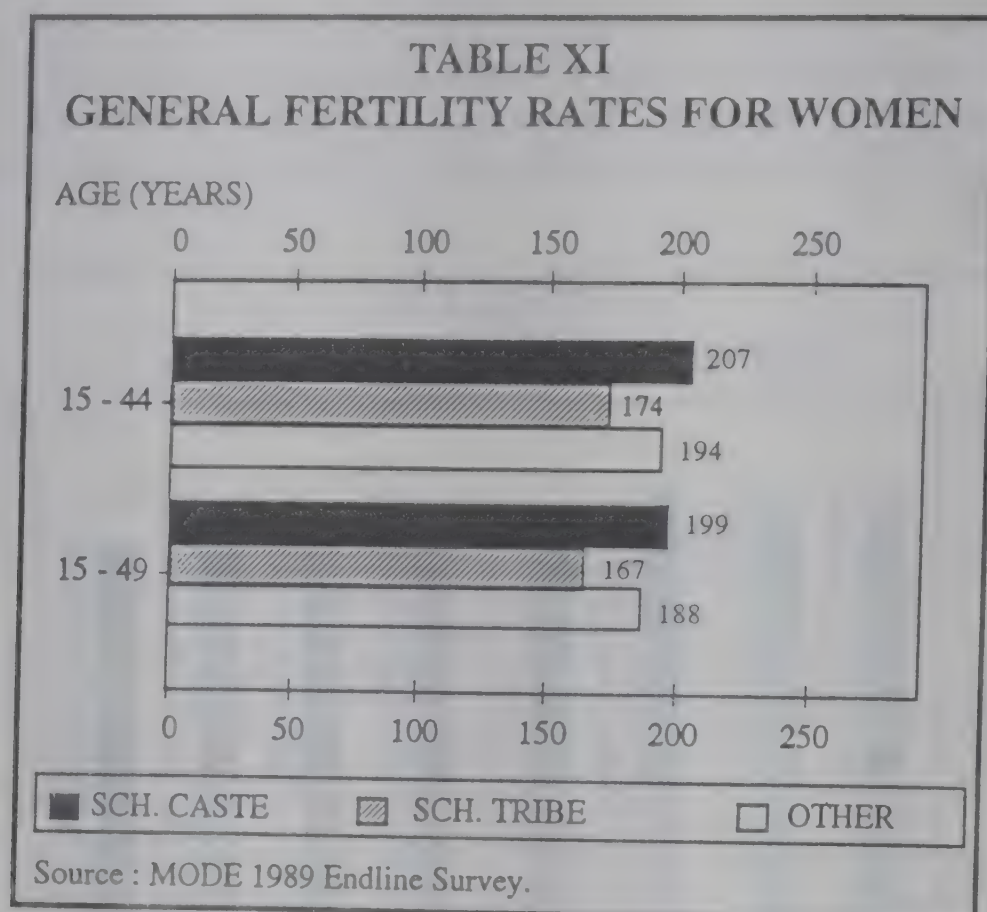
## 5.7 Total Fertility Rate :

The total fertility rate (TFR) is a refined measure than the crude birth rate because the TFR is independent of the age structure of the population (see section on Definition of Demographic terms). It can be thought of an average number of children that a woman will bear over her reproductive lifetime. In Orissa there has been no decline in the TFR of 4.2 since 1977 (SRS, RGI). This compares with a decline in the TFR in almost half the states in India.

## 5.8 Fertility by Caste :

Scheduled Tribe women in rural areas have significantly lower fertility rates than the Scheduled caste women. A study from the Population Research Centre, Utkal University (R N Pati, et.al 1989) identified the high level of women's participation in the labour force, the high social status of tribal women and the couple's perception of the health

of the mother and child, as having an important bearing on preference for child spacing of 3-6 years amongst tribal groups.



## 6.0 THE IMPACT OF THE FAMILY WELFARE PROGRAMME ON FERTILITY

It is difficult to determine the causes of fertility decline due to the numerous direct and indirect influences on fertility. These include demographic variables such as changes in the population age structure, socioeconomic variables, cultural practices and contraceptive use. Figure 6 from "Population Reports" gives a summary of the different methods of analysis which can be used to measure the demographic impact of family planning programmes.

Trend analysis of data from India suggests that more than half the decline in birth rate during early 1960s to 1981 (from above 40 to 34) resulted from lower marital fertility because of contraceptive use, principally sterilization. Changes in age structure accounted for most of the rest of the fertility decline (*Population Reports, Jan - Feb 1985, The John Hopkins University*).

From the available data for Orissa it is not possible to calculate the exact impact of contraception on fertility, but examination of the pattern of contraceptive coverage gives an impression of the likely effectiveness.

Table V showed that 82% of contraceptive coverage in Orissa is through female sterilization.

Table XII below gives the age and number of children of men and women at the time of sterilisation.

**TABLE XII : STERILIZATION**

CHARACTERISTIC	MALE	FEMALE
AVERAGE AGE (of wife in the case of vasectomy)	31	29.8
AVERAGE NUMBER OF LIVING CHILDREN	3.4	3.6
AGE OF THE YOUNGEST CHILD (years)	1.5	1.2

Source : MODE 1989



The same survey also showed that sterilization is the first time method for the vast majority of couples with only 6% of men and 7% of women reporting use of any other method prior to sterilisation.

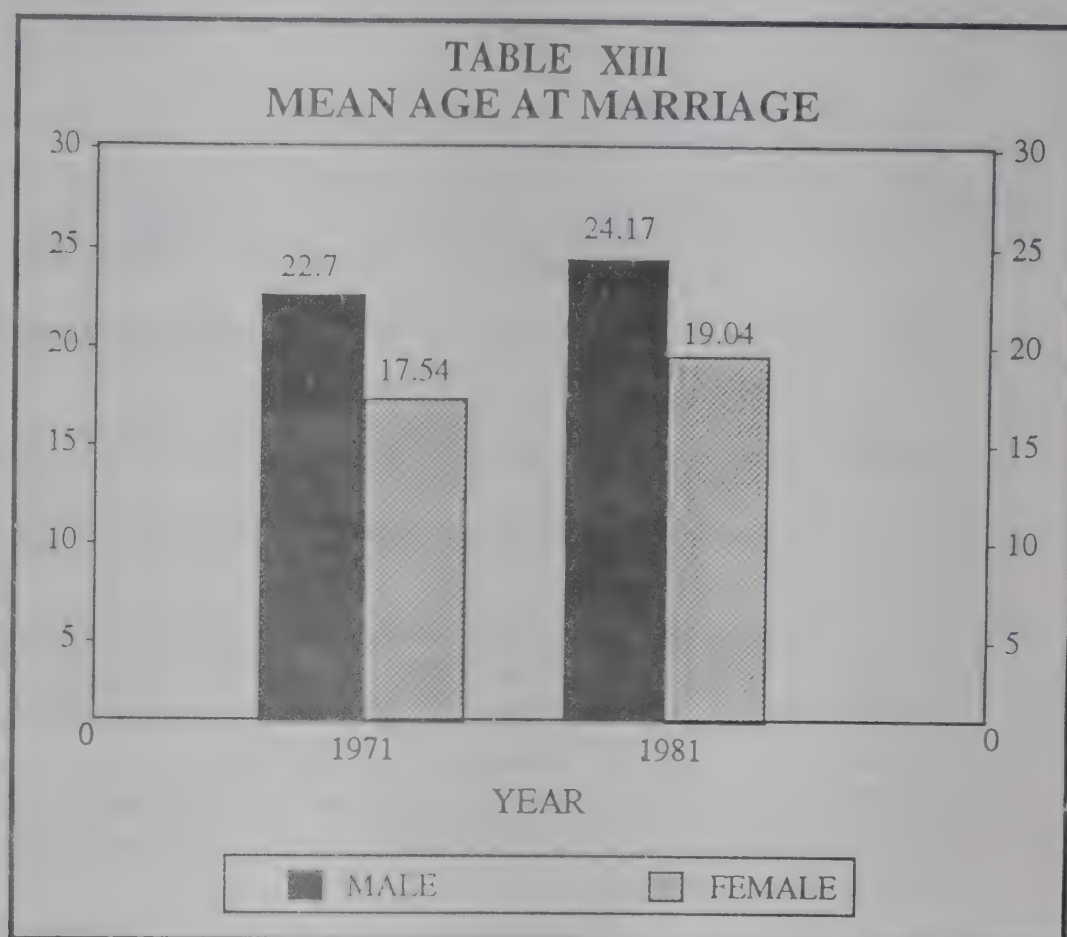
The demographic impact of the current pattern of contraceptive use in Orissa is limited by the dependence on sterilization as the main method, and the acceptance of this method only after the survival of three to four children appears assured.

## 7.0 PERFORMANCE ON OTHER DIRECT INFLUENCES ON FERTILITY

### 7.1 Age at Marriage :

Over a decade between 1971 and 1981 there was an increase in the mean age of marriage for both males and females in Orissa.

The Mode Survey showed that 30% of the total births relate to women having a birth order of four and above. Since higher order births are associated with lower age at marriage, the trend of higher age at marriage will have a positive impact on fertility.



### 7.2 Breast Feeding :

Prolonged breast feeding is linked to lower fertility. Breast feeding until the child is nearly two is common in Orissa. There is no evidence of discrimination between male and female children in this respect (CFDRT, 1991).

### 7.3 Abortion :

Levels of knowledge about abortion service is very poor. Only 13% of women know that abortion services exist and are legal. Only 3% are aware that this service is free at Government hospitals (MODE, 1989).

## 8.0 ISSUES

8.1 The comparative analysis of the specific studies and the official progress report reveals many areas which are required to be looked into closely. The following issues emerge out of the field studies.

- \* Low level of awareness for spacing methods due to lack of clearcut strategic plans for IEC and development and distribution of audience specific, need-based, subject oriented IEC messages and materials which results in poor demand for spacing methods and low utilisation.
- \* On the other hand, limited skills among the key field functionaries providing services which are attractive to younger and lower parity families and lack of proper followup resulted in poor quality of services.

- \* In addition, specific quota for the provision of sterilization cases tend to bias workers against effective provision of material and child health services and spacing methods.
- \* The rapid expansion in the physical infrastructure and manpower has not been accompanied by commensurate strengthening of support services.

8.2 The Table XIII indicates the age at marriage for female as 17.54 and the breast feeding is continued upto 2 years. The Table XII indicates the age of female at the time of sterilization as 29.8 and the average number of living children is around 4 and total marital fertility rate is 5.2 which means that each female during the 12 years gave birth to 5 - 6 children and sterilization was done on the exhausted mothers.

8.3 Under these circumstance, there exists two options:

- Option 1** : Should we still go on these beaten tracks ?  
*The danger of continuing this trend will certainly lead to point of no return.*
- Option 2** : Is there any scope to think about alternative strategies to improve the efficiency effectiveness of family welfare services ?

If the response is positive, then the following questions need to be addressed.

- Is there a need to apply the uniform policy to all the areas irrespective of terrain, cultural barriers, socio-economic conditions ?
- If the response is positive for question 'A', what structural and process changes are required for acceptance of spacing as well as efficient and effective delivery of services by the providers ?
- What should be the strategic plans to increase the awareness and participation of the community so that population programmes became peoples' programmes ?
- What should be the strategy to evolve a system at State/District levels to coordinate effectively to pool all the resources of the state, Govt. of India, International donor agencies and Non-Governmental Organizations to avoid duplication of efforts.

## 9.0 CONCLUSION

9.1 Contraceptive use cannot be considered in isolation from the health and socio-economic environment such as the infant mortality rate, and the status of women, particularly women's education levels. Government policies in these areas, for example provision of legal rights for women which makes them less dependent on many children for economic support, help to create a climate in which the desire for children is reduced.

9.2 However, no matter how much couples may wish to have fewer children and no matter how well intentioned effective policies to reduce rapid population growth are, these will not be translated into lower fertility unless couples have easy access to good quality modern contraceptive services.

9.3 From this paper one could easily infer that Orissa has tremendous health manpower, material and financial resources to manage the primary health care programmes. In developing the health care system, we have concentrated more on the inputs that the process and output hence we have played more number games without any result.

This is the position, WE ARE IN NOW.

We do hope the Seminar will address some of the issues so that we can restructure the system to achieve the goals for 2000 A.D.



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## DEFINITIONS OF DEMOGRAPHIC TERMS

### **1. CRUDE BIRTH RATE (CBR)**

The number of live births per 1,000 population in a given year. The CBR depends on both the level of fertility and the age distribution of the population. All else equal, the larger the proportion of the population in high-fertility age groups, the higher the CBR.

### **2. TOTAL FERTILITY RATE (TFR)**

The average number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the age-specific fertility rates of a given year. The total fertility rate equals the sum of the age-specific fertility rates where age is given in single years. The TFR is a more refined measure than the CBR because the TFR is independent of the age structure of the population.

### **3. GENERAL FERTILITY RATE (GFR)**

The number of live births per 1,000 women between age 15-49, in a given year.

### **4. GENERAL MARITAL FERTILITY RATE (GMFR)**

The number of live births per 1,000 married women between age 15-49, in a given year.

### **5. AGE-SPECIFIC MARITAL FERTILITY RATE (ASMFR)**

The number of live births per 1,000 married women of a specific age in a given year.

### **6. AGE STRUCTURE**

The composition of a population described in terms of the number of persons in each age category.

### **7. MARITAL STATUS DISTRIBUTION**

The composition of a population described in terms of the number or proportion of married persons in the population. In some countries persons living in union are included.

### **8. AVERAGE ANNUAL GROWTH RATE**

The rate which a population is increasing (or decreasing) in a given year or year, expressed as a percentage of the base population.

### **9. NATURAL FERTILITY**

Reproductive performing in the absence of contraception, induced abortion, or any form of intentional birth control.

*Sources :* Haupt and Kane (110), Palmore and Gardner (231), United Nations (324), Van de Walle (334), World Bank (352).

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## REFERENCES

1. MODE Survey Report 1989
2. India's Population Demographic Scenario -- 1990  
-- Department of Family Welfare, Ministry of Health & Family Welfare,  
Govt. of India.
3. Demographic Diversity of India 1991 Census  
-- Dr. Ashish Bose
4. IEC Study  
-- Centre for Development Research and Planning, Madras.
5. Study of Contraceptive Prevalence  
-- Cleveland 1985
6. World Population Trends & Policies  
-- Monitoring Report, United Nations
7. Population Reports  
-- John Hopkins University 1985
8. Health Status in Orissa -- A Statistical profile  
-- Almas Ali & Nagendra K Acharya
9. Socio-cultural factors of Birth Spacing  
-- A micro-level study on different castes and tribes of Orissa  
by Population Research Centre, Utkal University



## APPENDIX 1

### Methodologies for Studying the Demographic Impact of Family Planning Programs

Name	Question Asked	Examples of Data Used	Summary of Technique	Strengths	Weaknesses
Standardization (decomposition)	What parts of a change in fertility are due to : (1) changes in marital fertility, (2) changes in age structure of WRA, (3) changes in proportion of women married at each age, (4) changes in proportion of WRA in the population ?	Demographic : CBR or TFR, proportion of women married in each age group.	Using observed fertility change, calculates what impact change in one demographic factor would have had if the other factors had remained constant.	Analysis fairly simple. Data usually available. Can be computerized.	Does not directly measure effect of contraceptive use or of program. Results sensitive to choice of time period analyzed.
Trend analysis	Does a change in the fertility trend coincide with the start of a family planning program?	Demographic : CBR or TFR.	Compares fertility trend before start of program with trend since start of program. Difference is attributed to program.	Analysis simple. Data usually available. Estimates net program impact.	Impact may be obscured if program grew slowly. Assumes no concomitant change in other influences on fertility. Results sensitive to choice of time periods analyzed.
Standard couple-years of protection estimate (SCYP)	How many births will be averted in a given year and subsequent years by program supplies and services provided in a given year ?	Program statistics : method-specific acceptance and continuation rates. Demographic : ASMFR.	Calculates total CYP that will ever be provided by supplies and services delivered in a given year, taking into account ASMFR, overlap between contraceptive use and postpartum amenorrhea and contraceptive effectiveness and continuation rates. Births averted are estimated by multiplying CYP by age-specific fertility rates.	Can be adapted to estimate net program impact.	Program statistics -- both acceptance and continuation rates -- may be unreliable or unavailable.  Analysis moderately difficult.
Reproductive process analysis	How many births will be averted in one or more years by specific contraceptive methods supplied by program?	Program statistics : method-specific acceptance rates. Demographic : usually IUDs. Then ASMFR, number of births to married women.	Uses life-table techniques to calculate continuation rates for specific program methods, estimates increase in birth interval due to contraception. Then can calculate births averted per year per acceptor for each method.	Can be adapted to estimate net effect of each method.	Program statistics may be unreliable.  Difficult to use for assessing overall program impact.  Does not account for other influences on birth intervals such as sterility postpartum amenorrh.  Analysis difficult.

*Note : Net program effect refers to the actual number of people who adopt family planning due to program activities program number of new users obtaining supplies from program source, regardless or whether they used other sources previously or source if the program were not available.*

Name	Question Asked	Examples of Data Used	Summary of Technique	Strengths	Weaknesses
Component projection	How many births will be averted in a given year through use of program supplies and services?	Program statistics : acceptance rate, continuation rate.  Demographic: ASMFR proportion of population married.	Taking into account characteristics of contraceptive use, produces an age-specific model of fertility change during a period of a woman's reproductive life.  Usually involves computerized models such as CONVERSE.	Computer programs available for some techniques.  Some techniques can be adapted to estimate net program effect.  Outputs can include a full range of demographic variables including fertility rates, age structure, and population size.	Program statistics may be unreliable.  Analysis may be difficult.  Many data needed.  Some methods do not account for sterility, overlap between postpartum amenorrhea and contraceptive use or trends in natural fertility and nuptiality.
Prevalence model	Given the level of contraceptive prevalence in an area, how many births are averted by contraceptive use in that area? What are sources of contraceptive supply?	Survey : contraceptive prevalence.  Program statistics (optional) : continuation rates, effectiveness rates.	Estimates annual births averted through a mathematical relationship between contraceptive prevalence, on one hand, and natural fertility modified by contraceptive effectiveness and sterility, on the other.	Analysis simple.  Uses survey data, more accurate than program statistics.  Few data needed.  Can distinguish program from non-program effects if appropriate survey questions asked.	Out-of-date or poor quality survey data would make results unreliable.
Experimental design	What is the difference in fertility between two similar groups one with a family planning program and one with a different program or no program?	Data needed depend on design of study. Usually, program statistics and demographic data are used.	Usually compares changes in crude birth rates or fertility rates in the two groups. Groups should otherwise be as similar as possible.	Controls for many direct and indirect confounding factors.  Useful for pretesting program strategies.  Output is net program effect.	In quasi-experiments, experimental and control groups may not be sufficiently similar to rule out confounding factors.  Exposure of controls to program may dilute differences.  Analysis difficult : many data often required to prove groups equivalent.  Experimental programs may not be reliable in large population.  Ethical and political problems involved.  Providing services and gathering data can be expensive.
Multivariate areal analysis	What proportion of differences in fertility in different geographical areas is due to program factors and what proportion is due to socioeconomic factors?	Program statistics : acceptance rates, program expenditures, number of clinics.  Demographic: CBR or TFR.  Socioeconomic indicators : literacy, non-agricultural employment, urbanization, life expectancy, IMR.	Uses multiple regression techniques to measure association between various program and nonprogram factors and fertility. Geographic areas are the units of analysis.	Computer programs available.  Estimates net program effect.	Requires many data.  Sensitive to choice of indicators of program strength and socioeconomic status.  Association of variables is not proof of cause-and-effect relationship.  Strong correlation between independent variables can make results difficult to interpret.

ASMFR = age-specific marital fertility rate  
 CBR = Crude Birth Rate  
 CYP = Couple Years of Protection  
 GFR = General Fertility Rate

IMR = Infant Mortality Rate  
 TFR = Total Fertility Rate  
 WRA = Women of Reproductive Age



29 July 1992  
Wednesday

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## INAUGURAL SESSION

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**Shri. R.K. MISHRA IAS**  
DEPUTY CHAIRMAN  
STATE PLANNING BOARD  
GOVT. OF ORISSA

**Shri BAIRAGI JENA**  
HON. MINISTER FOR HEALTH & FAMILY WELFARE  
GOVT. OF ORISSA.

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## INAUGURAL SESSION

Dr. J.C. Das Director of Family Welfare welcomed the participants and showed his concern over the problems in population explosion and in the implementation of the family welfare programmes.

Mr. Ian Pett, First Secretary (Health Services Development) British Council Division, Delhi, briefed the participants on the objectives of the seminar highlighting on developing strategic plans for comprehensive approach to family welfare services, social marketing and involvement of non-governmental organisations.

Shri R. K. Mishra, IAS, Deputy Chairman, Orissa State Planning Board in his presidential address presented a factual analysis on the global population scenario and the population scenario of India. He cited the example of the successful British model of National Health Services. In his address, he discussed the problems of primary health care and family welfare programme in India. He underscored the co-operation of voluntary organisations, NGOs, opinion leaders, officials, and mass media in seeking people's participation in family welfare programmes. He also discussed the progress achieved and difficulties involved vis-a-vis family welfare programmes in the context of Orissa. He outlined the following success factors needed to be emphasised :-

- (1) Setting a target. Giving time-targets (Quarterly basis).
- (2) Political will backed up by Effective Administrative Action.
- (3) Resources availability at the grassroot level. Mechanical and Modern aids.
- (4) Satisfactory operation of the Cold-chain for vaccines.
- (5) Durable skilled manpower.
- (6) Regular and repeated training of Health Workers and Family Welfare beneficiaries.
- (7) Popular participation; Community initiative: VOs/VAs/NGOs' role.
- (8) Reaching the inaccessible areas/unreached population.
- (9) Family counselling.

The Honourable Minister for Health , Government of Orissa, Shri Bairagi Jena, delivered his inaugural address. Excerpts of his speech are presented below :

The population scenario in Orissa is peculiar. We have the largest populous district Cuttack with more than 4.7 million population and the least populous district Phulbani with 0.85 million population. I am happy to note that Orissa's population growth rate is little less than National average but I am concerned about the high infant mortality i.e. highest in the country 123/1000 live births. My apprehension is that if the child survival safe motherhood takes care properly to reduce the infant mortality rate, then there is all possibility that our population growth rate will go up unless we focus special attentions on population stabilisation programmes. In this context, the seminar is of importance to our state.

The VIII Year Plans states that there will be shift towards child spacing and special focus on young couples rather than the exhausted mothers.



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It is sad that Balasore district is included in one of the 90 poor performing districts. Although Balasore is one of the high literate districts, it is peculiar to note that the age of marriage for female is 16 years, crude birth rate is 41 and infant mortality is 130. I feel we should develop strategic plans and innovative approaches in addressing such problem areas.

I am happy to note that all the sessions are well structured to address the problems specific to Orissa especially social marketing, community based contraceptive distribution system and involvement of Non-Governmental Organisations. I am very keen to learn the outcome of the workshop.

My appeal to the officials of the Health & Family Welfare departments will be to look up on these issues seriously and work hard to achieve the success. We should be self-reliant and self-sustaining in future. If the Government system is able to work with commitment and dedication, the days of success are not far off. I once again appeal to all the officials to bestow your sincere attention and work efficiently so that we can achieve results.

Friends, I once again thank you very much for your kind invitation to the Inaugural session and I am happy to inaugurate the seminar with big hopes that we, the State of Orissa will be very much benefitted by the deliberation and will be able to develop alternate approaches for better family welfare services in the coming years.

I, on behalf of Govt. of Orissa assure all co-operation, in alleviating the problems and structure a strong health care system to manage the health and family welfare services more effectively.

*With these words, I am happy to inaugurate the seminar and I wish you all the best.*

Dr. M.R. Bhupathy, Advisor (Health) British Council Divisions in his vote of thanks suggested about feasibility of Government's introducing the reservation policy on the size of the family basis rather than the castes.

# SEMINAR ON ALTERNATIVE APPROACHES TO FAMILY WELFARE SERVICES

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## SIGNIFICANCE OF BIRTH SPACING FOR MATERNAL & INFANT MORTALITY

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# SIGNIFICANCE OF BIRTH SPACING FOR MATERNAL AND INFANT MORTALITY

By  
PREM P. TALWAR

## I. Introduction

The levels of infant and maternal mortality in a given society are very sensitive to the changes in the health services. They are, therefore taken as robust indicators of the quality of health services and the developmental status of a community. It is unfortunate that India does not have data on maternal mortality rate except that its level is around 400 to 600 maternal deaths per 100,000 births. This contrasts with the level in the western populations where it is about 30 (1). Lack of data for this important and vulnerable sector of population has often constrained any detailed study on factors affecting maternal mortality except some observations by clinicians. One reason for lack of data is the requirement of a large sample size which has not been possible within limited resources available for research on maternal mortality. One often comes across general statement like:

“Complications of pregnancy and child birth are still a major cause of death among women in developing countries. Women’s chances of having such complications (and therefore, their chances of dying) are increased when:

- they have already three or more children
- they are younger than 20 or older than 30
- family planning improves the health of women by helping them to avoid high-risk pregnancies
- adoption of contraception can prevent many needless deaths among women (by avoiding need to resort to dangerous illegal abortions) in the ‘Third World’ (2).

Recently a doctoral dissertation has gone into various aspects of maternal mortality and identified the risk factors for maternal deaths in the years 1983-85 in Safdarjung Hospital, New Delhi (3). The relative risk (Odds Ratios) for some of the factors computed in this study are shown in Table 1.

It may be noted that birth interval has much higher risk for maternal mortality compared to other demographic factors like maternal age and parity. The risk for birth intervals less than 24 months is 2.5 times that of the longer birth intervals (more than 24 months).

In the case of Infant mortality, much more data are available, particularly from the beginning of seventies. The Sample Registration System and various sample surveys have provided information not only on the levels but on the factors which affect infant mortality. This paper therefore will have greater emphasis on infant mortality and relate it with birth spacing because of its large effect in the level of infant mortality. Intuitively, the factors which affect infant mortality will also, by and large, affect maternal mortality.

The level of infant mortality rate in India fluctuated around 130 deaths per 1000 births during the seventies and then started showing decline during the eighties till it reached 80 (provisional estimate) in 1990. Though this is very significant decline of about 50 points in about 20 years, the level is still very high when compared to the developed countries or even some of the developing countries. In Japan, where level of infant mortality rate could be taken as the ultimate target is 5 deaths per 1000 births. In other words, in Japan, only 5 infants do not celebrate their first birthday compared to the figure of 80 for India i.e. 16 times the figure for Japan.

Table 1 : Odds Ratios of Maternal Mortality for Risk Factors

Risk Factors	Odds Ratio of Maternal Mortality
1. Age of mother at birth below 20 years or 35 years or more vs. ages between 20-35 years.	2.18
2. Parity 0 and 4+ vs., parity 1-4	1.38
3. Birth interval of less than 24 months vs. longer birth interval	2.50
4. Experience of previous delivery as abnormal vs. normal	Not significant
5. Presence of hyperpyrexia vs. absence of hyperpyrexia	12.89
6. Presence of severe anaemia (Hb level less than 8.5 g %) vs. absence of severe anaemia	6.80
7. Presence of haemorrhage as complication vs. absence of haemorrhage	3.50
8. Presence of pregnancy induced hypertension as complication vs. absence of pregnancy induced hypertension as complication	2.88

For definition of Odds Ratios, see item 5 under the section Notes and References.

The situation in India becomes further grave when we disaggregate the infant mortality in India by individual States. Table 2 shows the level of infant mortality rates for five highest States. One obvious question which comes to mind is why such a disparity in the levels, can't lessons of better States be used for States where levels are still high. One inference is clear : there is ample scope of reduction in the infant mortality rate particularly in the States with higher levels. Though the paper will list some of the risk factors which can help in this reduction, birth spacing as one of the important determinant will receive most of the emphasis.

Table 2 : The States of India with Highest and Lowest level of Infant Mortality Rates in 1990\*

States	Level of Infant Mortality (1990)
<b>Highest Infant Mortality</b>	
Orissa	123
Madhya Pradesh	111
Uttar Pradesh	98
Rajasthan	83
Assam	77
<b>Lowest Infant Mortality</b>	
Kerala	17
Punjab	55
Maharashtra	58
Tamil Nadu	67
Himachal Pradesh	68
India	80

Source : Registrar General of India, Sample Registration Bulletin, 25 (2), Dec. 1991.



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It may also be pointed out that though the level of infant mortality is an indicator of the quality of health services and the developmental status of a society, it is a very laudable goal in itself. It could very well be taken as one important indicator of welfare and happiness of the family. Besides, its role in the acceptance of small family size norm is also well known. Various studies have shown reduced level of infant mortality as a pre-requisite for significant levels of acceptance of contraceptives and thus fertility reduction. In this sense, efforts towards reduction in infant mortality could also have synergistic effect on higher practice of family planning.

## II. Determinants of Infant Mortality

In an attempt to assess determinants of infant mortality in 1988, the author of this paper had developed an analytical framework to discuss determinants and their relative risk in affecting the level of infant mortality (4). It is the net effect of the positive and negative forces of these determinants which determines the level of infant mortality in a country. All the important determinants had been divided into four stages of infant's growth and development : (i) Conception, (ii) Growth and development of foetus, (iii) delivery of baby, and (iv) growth and development of the infant. Some of the important determinants which operated at each of these four stages enumerated in the framework are shown below :

1. Factors affecting the risk of infant death at the time of conception.
  - a. Age of mother
  - b. Parity of mother
  - c. Birth interval from the previous birth
2. Factors affecting the risk of death during gestation period
  - a. Sex of foetus
  - b. Mother's nutrition
  - c. Vaccination of mother
  - d. Utilisation of other ante-natal services
3. Factors affect the risk of death at the time of delivery
  - a. Place of delivery
  - b. Attendance at the time of delivery
4. Factors affecting the risk of death during the post-natal period.
  - a. Utilisation of health services including post-natal care (excluding immunization of the infant which is considered separately because of its importance)
  - b. Environment -- water, air etc.
  - c. Nutrition of the mother during breast feeding
  - d. Nutrition of the infant
  - e. Immunization of the infant
  - f. Socio-cultural practices of the child rearing.

These 16 factors have been listed in the framework to be affecting infant mortality. Efforts were made to collect data on these determinants to check validity of the framework from rural area of Madhya Pradesh. Based on the data, the Odds Ratio (5) were computed to estimate relative risk of each of the factor. Table 3 shows relative risk of the determinants of infant mortality.

Table 3 : Relative Risk of Various Factors Affecting Infant Mortality

Factors	Relative Risk of Infant Mortality
1. Age of mother at birth below 20 years or above 40 years vs. between 20-39	1.34
2. Birth order 4 and over vs. birth order of three or less	1.10
3. Birth interval of less than 12 months vs. more than 12 months	3.80
4. Birth interval of less than 18 months vs. more than 18 months	1.80
5. Birth interval of less than 24 months vs. more than 24 months	1.40
6. Non-receipt of TT vs receipt of TT	1.28
7. Non-use of ante-natal care vs use of ante-natal care	1.74

Therefore, though there are several factors which contribute risk to infant mortality, birth spacing is one of the important one. One may notice how the risk of infant mortality keeps on reducing with increase in the birth interval i.e. it is 40 percent higher for the birth with birth interval less than 24 months. Since this paper is highlighting the effect of birth spacing on infant and maternal mortality, most of the discussion in the next section will be devoted to birth interval as a factor affecting mortality.



### III. How Birth Spacing Affects Infant Mortality

As seen in Table 3, shorter birth interval (BI) has higher risk of infant mortality. Most of the international studies have been defining short birth interval as upto 24 months but this may not be applicable in the Indian setting because of poor health and low nutritional level of the Indian mothers. Table 4 shows the level of IMR by length of birth interval (6).

**Table 4 : Level of IMR for different Lengths of Birth Intervals.**

Length of BI (Months)	Level of IMR	Index No.	Chain Index No.
< 12	378	100	100
13 - 24	257	68	68
25 - 36	180	48	70
37 - 48	129	34	72

Though there is sharp decline in the level of IMR with increase in the birth interval, the decline of one level of BI to the other has been similar till the length increased to 36 months (Chain Index No.). Therefore in Indian setting, the BI may be short if it is less than 36 months.

It may be stated that short birth interval leads to high IMR is true not only for India but all over. This is a universal phenomenon - in all regions of the world, in both urban and rural areas and in countries at all levels of mortality. Close BI increase mortality in families at all socio-economic levels, even those in which the parents are wealthy and well-educated. The adverse effects of close spacing afflict children born to women of all ages, and children of all birth orders (7).

It is also found that although the increased risk of death linked to short birth interval weakens as children grow older, it lasts until they are at least 5 years old (8).

The detrimental effect of inadequate interval between births on maternal and infant health has number of causes, four of them are particularly important. They are; (i) Biological effects related to the maternal depletion syndrome; (ii) Premature and abrupt cessation of breast feeding; (iii) Behavioural effects associated with competition between siblings and (iv) Disease transmission. The maternal depletion syndrome refers to a pattern of repeated, short-spaced pregnancies providing inadequate time for mother to recover fully from the adverse physiological and nutritional demands associated with pregnancy, parturition and breast feeding (9). This may cause the birth of premature, under-weight infants and result in inadequate breast milk, both of which are major high risks. It may also be stated that women who bear children in close succession are deprived of time needed to recover from the demand of the pregnancies, labour and breast feeding. Exhaustion and higher rates of complications increase their risk of death also. The second cause (cessation feeding) gets activated because of weaning long before the infant should. Studies have shown that abrupt and premature cessation of breastfeeding is a major risk to the health of young children, particularly when it coincides with pregnancy.(7)

The third mechanism namely, sibling's competition, rests on hypothesis that in situations in which closely spaced pregnancies lead to two children of roughly comparable age, the younger child/infant is likely to suffer, either because the household is less likely to invest limited resources such as food or care in the child or simply because such resources are spread more thinly among siblings. The next mechanism (disease transmission) is based on epidemiological concept. Larger number of children within the household may act as the source of spreading infectious diseases and also in keeping up the severity of infection. Studies on this issue have reported a consistent relationship between short previous birth interval and mortality. (10, 11)



Recently an effort was made to assess the potential of adequate birth interval (three or more years) in reduction of infant mortality in India. (12) It was found that if no birth is allowed to occur in birth interval of less than three years then the infant mortality will reduce by about 10%. This figure was 20% when the aggregate data from several countries of the world was taken. (7) (Ofcourse, maternal mortality will also be affected.) These figures reflect the potential of birth interval for reduction in the infant and maternal mortality.

#### IV. Infant Mortality Affects Fertility : Thus birth spacing has effect on fertility as well

As stated above that reduction in infant and maternal mortality is a laudable goal in itself, but its reduction has spin off effect on higher acceptance of family planning methods and consequently on reduction in fertility. Its relationship can be intuitively explained by several factors has been observed empirically. A recent review of such relationship has discussed this relationship.(13) The inter-relationship has been shown through four mechanisms :

1. Biological effects of infant mortality on fertility
2. Replacement effects of infant mortality on fertility
3. The insurance effect
4. Societal effect of high infant mortality on fertility.

It is therefore important that infant mortality should be reduced at the fastest pace. Besides, several factors which can help in it, lengthening of the birth interval is one very important factor.

#### V. Breast Feeding and Spacing Methods for Increasing Birth Spacing

There are two approaches for the increase in birth interval. The first is practice of long breast feeding which leads to prolonged periods of post-partum amenorrhea and thus longer birth interval. The second approach is the use of spacing methods of family planning so that the birth interval of atleast three years can be achieved. Both these approaches should be adopted to increase birth interval as well as to reap the benefits of these practices on IMR and fertility.

The period of breast-feeding has been seen to be highly positively correlated with the period of post-partum amenorrhea and thus has important contraceptives effect.

**Table 5 : Relationship between length of breast-feeding and length of birth interval.**

Breast-feeding Direction (Months)	Post-partum Amenorrhea	Interval between Birth to Next Conception (Months)
0 - 6	1.9	6.8
7 - 12	2.9	7.4
13 - 18	6.0	24 +
18 +	10.7	24 +

Source : Anderson, J.E. et al. Breast-feeding effects on birth interval components :  
A prospective child health study in Gaza. Studies in Family Planning, March - April 1986.

The relationship shown in the table should not be taken as ones study relationship. In another set of data, it was shown that women who did not breastfeed at all experienced amenorrhea lasting one to three months, while in women who breastfed for about 18 months, amenorrhea lasted for 8-13 months (14). In a still another set of data from eight world Fertility surveys, it was estimated that every month of breastfeeding, on an average, lengthens the infertile period after a birth by 0.4 months (15).



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Though there is a positive relationship between breastfeeding and BI, but the extent of delay depends on the frequency, duration and intensity of breast feeding. In many parts of the developing world, breast feeding has a greater impact than any other contraceptive method in promoting healthful birth spacing.

Besides helping in increased birth spacing, the breastfeeding also helps in infant survival in other ways as well. Nutritionally, breast milk provides the optional balance and quality of essential nutrients to infants. It also contains anti-infective properties that help protect the child from early exposure to a disease-ridden environment. Breastmilk is sterile and passes directly from mother to child, virtually eliminating the possibility of contamination. Moreover, breastmilk contains maternal antibodies, enzymes and other chemical properties that actively resist infection. Thus breastfeeding increases survival of infants in more than one ways.

The use of spacing methods of family planning is another approach of achieving birth spacing of the desired interval. Its achievement in terms of attaining desired birth interval depends on the continuity of the method and its use-effectiveness. Since discontinuation could occur for several reasons or by failure of the method, it is essential that the reasons leading to discontinuation and reasons for failure should be minimized. The reasons have been listed in a recent paper of the author. (16) In India, the use of spacing methods is low, both because of low acceptance and low continuation. It is therefore necessary that people should be informed advantages of prolonged birth interval so that more and more couples use spacing methods to achieve the desired birth interval.

## **VI. How to promote breast feeding and popularise spacing methods**

Since both breast feeding and use of spacing methods could lengthen the birth spacing and thus reduce infant mortality, it is necessary that strategies should be adopted to promote breastfeeding and popularise spacing methods.

Recently the resurgence in the rates of breastfeeding in the developed countries as awareness of its natural benefits has grown. But in the developing countries, the trend has been away from breastfeeding, particularly in urban areas. This has been of concern, particularly since it is likely to reduce birth interval and deprive child of its various benefits and will therefore affect the level of infant mortality and fertility. Promotion of breastfeeding has therefore become an important aspect of child survival programmes in all countries. These promotional activities generally take three forms : Information and Support Programme to the Community, Training Programme for Health professional and traditional birth attendants and efforts to change hospital practices to encourage new mothers to begin breastfeeding. While the former two are obvious, in the third form, various hospital practices are being so modified as to encourage breastfeeding. For instance, women are allowed to keep new borns with them as it has been seen to lead to start and continue breastfeeding. Alongwith this, other hospital and domiciliary practices against breastfeeding need to be changed. It may also be emphasised that alongwith promotion of breastfeeding, total practice related to breastfeeding like intake of colostrum and weaning practices need to be corrected.

Coming to population of spacing methods, the efforts have to be made to increase acceptance continuation and increase use-effectiveness. Suggestions in this regard have been given in a recent paper of the author, (14). Some highlights of those suggestios have been listed below:

1. More publicity of the benefits of the spacing methods
2. Training to the health staff so that their recommendations on the family planning methods should be based on the need of the client.
3. Improve accessibility of spacing methods through free distribution channels, social marketing and community-based distribution.
4. Both partners of the family should be explained about the use methods, possible side effects and type of treatment needed to meet the side-effect problems. Togetherness will bring higher motivation and support in the case of side-effects. These are necessary for better continuation rates.
5. High failure rate of oral contraceptives in India suggests that probably it is related to its use which may be faulty. There is need therefore to tell clients more about its use pattern.



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## REFERENCES

1. World Health Organisation, Deaths according to cause by Sex, WHO Annual Statistics, 1992.
2. Columbia University, Centre for Population and Family Health (1982). Family Planning : Its Impact on the Health of Women and Children.
3. Anandalakshmy, P.N. (1989) Determinants of Maternal Mortality -- An Epidemiological Approach. These submitted to All India Institute of Medical Sciences for the degree of Doctor of Philosophy.
4. Talwar, Prem P. Infant mortality -- some Evidence from Rural Madhya Pradesh. In *Infant Mortality in India, Differentials and Determinants*, (Eds. Jain., A.K. and Visaria P.) Sage Publications, New Delhi, 1988.
5. The index of Odds Ratio compares two risks -- the risks of death in the presence and absence of the factor under consideration.
6. Khan M.E. Infant Mortality in Uttar Pradesh. A micro-level study. In : *Infant Mortality in India : Differentials and Determinants* (Eds. Jain., A.K. and Visaria, P.) Sage Publications , New Delhi pp. 227-246, 1988.
7. Galway K. et al. (1987) *Child Survival : Risk and the Road to Health*, Institute for Resource Development / Westing House, Colombia, Md., USA.
8. Maine, Deborah and MC. Namara R. Birth Spacing and child Survival, Centre for Population and Family Health, Columbia University, 1985.
9. Jelliffe, D.B. (1966). *The Assessment of the Nutritional Status of the Community*, WHO Monograph series No. 53.53, Geneva.
10. Pebley, A.R. and P.W. Stupps (1967). Reproductive Patterns and Child Mortality in Guatemalaia. *Demography* (24). Population Association of America.
11. Retherford, R.D. et al (1989). To what extent does breast feeding explain birth interval effects on early childhood mortality. *Demography* (26). Population Association of America.
12. Talwar, P.P. (1985). Inter-relationship between infant mortality and fertility : Some evidence from Indian Studies. In *Socio-cultural Determinants of Fertility*. Indian Council of Medical Research, New Delhi.
13. Talwar P.P. and Y.P. Gupta (1992) : The Importance of Birth Spacing to India's Family Planning Programme. Computer-based model developed by the National Institute of Health and Family Welfare, New Delhi.
14. Senanayake P. Breastfeeding and child spacing *HYGIE*, 84(3), 1984. p.29.
15. Jain, A.K. and Bongaarts, J. Socio-biological factors in exposure to child-bearing : breastfeeding and its fertility effects. In *World Fertility Survey conference 1980 : Record of proceedings*, vol.2, London. WFS 1981.
16. Talwar, P.P. Choice, Acceptance and Continuation of Spacing Methods in India. Paper presented at the workshop on Alternative Strategies of Increasing use of Spacing Methods April 9-10, 1992, Delhi.



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# The Discussion

The discussion, initiated by Prof. Sinha, was lively and wide ranging. A number of questions from the floor related to clarifications on data and research methodology. However, this report will concentrate on practical recommendations of relevance to programme managers.

## 1. Spacing methods : targeting the population

Prof. Sinha began by describing birth as a “critical event” around which promotion of contraceptive methods can be made. At any one time there is a pool of women who have recently given birth, and those who are in their third trimester of pregnancy. These form a readily identifiable target population for education about the benefits of delaying the birth of their next child.

The discussion was then thrown open to the floor. It was suggested that after the birth of a child, follow-up of the mother, including monitoring contraceptive use, should be carried out alongside follow-up of the child for immunization. This would facilitate acceptance of both contraception and immunization.

## 2. Breast feeding

### 2.1 Efficacy of breast feeding as a spacing method

Breast feeding as a spacing method was considered in detail. It was emphasized that the efficacy of breast feeding as a spacing method depends on the frequency, duration and intensity of breast feeding. A small proportion of women become pregnant even before their menstrual cycle resumes, therefore, on an individual basis, if pregnancy is to be avoided, an additional method of contraception should be used. If the oral pill is the method of choice by a woman who is still breast feeding her child, the progesterone, only pill which can be safely taken.

### 2.2 Promoting breast feeding

All the participants recognized the enormous benefits to the child of breast feeding, and for this reason alone it should be strongly promoted by health workers. Some participants felt that the constraints on women's time should be better understood, so that advice given to her about breast feeding is realistic and takes into account the multiple demands (such as other children and employment) made on her.

### 2.3. Skills for promotion of contraception and breast feeding

The participants heard about Lactation Management Training Programmes designed to improve the advice given to mothers by health workers. These have proved an effective means of encouraging breast feeding in both rural and urban areas.

Dr. Anand, the session Chairperson, concluded by focusing the discussion on the multipurpose workers. These are the key figures who can influence birth spacing, through giving advice on breast feeding and through promoting and delivering contraceptives. The question is, are their communication and counselling skills adequate for them to fulfill this role effectively ?

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## DOCUMENTS

- \* ACTION PLAN FOR REVAMPING  
FAMILY WELFARE PROGRAMME IN INDIA
  - \* POPULATION CONTROL : CHALLENGES & STRATEGIES
- 



MINISTRY OF HEALTH AND FAMILY WELFARE  
GOVERNMENT OF INDIA  
NEW DELHI



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# **ACTION PLAN FOR REVAMPING THE FAMILY WELFARE PROGRAMME IN INDIA**

## **1. DEMOGRAPHIC SCENARIO**

1.1 According to 1991 Census, the country's population is 843.93 million a substantial rise from 342 million in 1947 and 684 million in 1981. The annual addition to the population is 16 million. The all-India average annual growth rate during the 1981-91 decade has been of the order of 2.11% marginally lower than 2.22% during the preceding decade. The Statement at Annexe - I brings out the comparative position in regard to decadal variation in population, change in decadal variation and average exponential growth rate of population in different States/UTs.

1.2 The latest available Sample Registration System (1989) estimates indicate All-India birth rate of 30.6, death rate of 10.3 and Infant Mortality Rate of 91. Two important parameters influencing fertility behaviour are female literacy and age at marriage for women. Couple Protection Rate (CPR) also indicates the level of efforts made for birth control. The Statement at Annexe - II brings out the comparative position of different States/UTs in regard to several selected indicators.

1.3 The long term demographic goals as laid down by the National Health Policy (1983) is to achieve the birth rate of 21 per thousand, death rate of 9 per thousand, natural growth rate of 1.2%, infant mortality rate below 60 per thousand live births and couple protection rate of 60% by the year 2000 A.D. It has already been recognised that given the current level of achievements, the goals may not be achievable at the National level before 2006-2011 A.D.

## **2. FUTURE STRATEGIES**

Faced with grim prospects of population explosion, it is necessary to devise innovative strategies for imparting new dynamism to the Family Welfare Programme. While the population control programme has to essentially evolve as a multi-sectoral programme comprising many aspects which go beyond family planning, a result-oriented Action Plan has been developed. The broad framework is summarised below :

### **2.1 National Consensus and Efforts**

The population control programme should emerge as a national consensus with willing participation of all segments of the society cutting across political, religious and cultural barriers. It has to be backed by strong political commitment and will not only at the national level but also at the level of States/UTs, which are primarily responsible for implementation of the programme. Political leaders, religious leaders and other opinion leaders at different levels will have to be approached for their active involvement in moulding public opinion.

### **2.2 Improvement of quality and outreach of services**

A vast network of institutions has come up in the country for delivery of health and family welfare services over the successive plan periods. It has, however, been recognised that the quality of service delivery extended to the people is not satisfactory. Besides, the outreach of services is also not adequate for the people in remote rural areas and urban slums. The following steps would be taken :

- a) Keeping in view the general constraint of resources (financial, administrative and managerial) for pushing the family welfare programme, the thrust during the 8th Five Year Plan would be first to consolidate the existing infrastructure. There is no point in going for opening of new sub-centres etc. in the future, if the



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existing sub-centres are not functioning properly. However, keeping in view the norms fixed during the 7th Five Year Plan, new institutions will be sanctioned if adequate funds are made available. Special attention will be paid to creation and strengthening of infrastructure in the urban slums where these are particularly deficient.

- b) Integrated training modules for training and re-training of medical and para-medical personnel involved in the delivery of family welfare services will be developed and adequate funds made available for organising different training programmes in the institutions already set up for the purpose.
- c) As motivation is a key factor in improving the quality of delivery of services, it will form a key element in the training modules for medical and para-medical personnel at all levels.
- d) Special attention shall be paid by the State Govt./UT Administrations to have a proper organisation for maintenance of equipments, vehicles and buildings and, wherever possible, train even the existing family welfare workers for doing small repairs. This would ensure proper utilisation of vital equipments and valuable assets created under the programme.
- e) The supervision at all levels will have to be vastly improved. This will primarily focus on identification of problems, finding solutions thereto and improving understanding and capabilities of key functionaries involved in the delivery of services.
- f) Special attention shall be paid to the construction of buildings for Primary Health Centres and sub-centres through Area Development Projects and under the Minimum Needs Programme of the States Plans.
- g) The State Governments and UT Administrations would look into the practical problems of the workers like ANMs in the field conditions such as their place of stay, mobility and travelling expenses etc. as inadequate attention to these problems seriously hampers the working of the main propagators and service providers of the family welfare programme at the grassroot level.

## 2.3 Special Strategy for 90 Districts

The demographic and health profile of the country is not uniform. Examination of the statewise data regarding behaviour of the important demographic and health indicators shows very clearly that any operational strategy, to be successful, will have to be based on disaggregated approach. The 4 States of Bihar, Madhya Pradesh, Rajasthan and U.P. which constitute about 40% of country's population, have IMR and MMR level distinctly higher than the national average. These are also the States where female age at marriage, female literacy and share of women in the non-agricultural employment are distinctly lower than the national average. Unless special efforts are made to bring up the profile and performance of these States in regard to health and family welfare, it would be well-high importance to accelerate the achievement of demographic and family welfare goals at the national level. Special Area Development Projects have already been launched in these States with the help of World Bank, UNFPA and other funding agencies. The pace of the implementation of these projects primarily designed to strengthen the infrastructure and to improve the training of their staff requires to be speeded up with due attention to quality of implementation.

2.3.1 The relevance of the disaggregated approach does not stop at the identification of the four States. An analysis of demographic indicators at the district level indicates that there are 90 particularly bad districts where the CBR is above 39 per thousand (1981 Census). A list of these districts is placed at Annexe-III. The following steps would need to be taken to improve the programme performance in these districts :

- a) Micro-level planning by the States to identify the needs on a realistic basis for reduction in birth rate in these districts. Resources will be allocated for strengthening of infrastructure and provision of other essential inputs after taking into account the inputs already provided in these districts through Area Development Projects and other special projects, if any.



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- b) All posts at grassroot level of family welfare workers and supervisory officers would be filled up and only motivated officers with excellent record in these districts would be posted.
  - c) Priority for construction of sub-centres and buildings for other health institutions would be given in these districts under the Area Development Projects.
  - d) Intensive training of medical and para-medical personnel would be organised.
  - e) Since many of the low performance districts have large minority populations, minority community leaders at local levels would be involved in launching imaginative IEC programmes designed to increase family planning acceptance by all sections of the society through methods best suited to individual needs.
  - f) In order to improve the inter-personal communication efforts at the grassroot level, a scheme of link volunteers would be tried out in some of the districts on a pilot basis. Deptt. of Woman and Child Development would be requested to cover all the 90 districts with ICDS programme and suitable linkage developed at the delivery level with ICDS functionaries to delivery health, nutrition and family welfare services as a package.
  - g) The District Collectors would be fully involved in coordination/supervision of family welfare programme related activities in these districts.

## **2.4 Package of Incentives/Disincentives**

2.4.1 The present scheme of compensation for loss of wages to acceptors of sterilisation/IUD, places great emphasis on target achievement with the result that the quantity has taken precedence over quality and some specific methods seem to have over-shadowed others. It has increasingly been recognised that we should get rid of "tyranny of targets" altogether. Targets based on micro-level planning suiting the local specific needs may, however, continue to be fixed for monitoring of the programme.

2.4.2 The above scheme will be modified to provide for greater flexibility to the States and to cover younger age couples with greater fertility potential under spacing methods. The resources meant for the purpose would be provided to the States/UTs in relation to their overall birth rate reduction efforts. In order to work out a suitable formula for devolution of resources under the scheme, a Committee under the chairmanship of Shri S. B. Mishra, Joint Secretary in the Ministry of Health & Family Welfare will be constituted which will have 4 State Health Secretaries as its members-two from good performing States and two from poor performing States. The Committee will finalise its recommendations within 3 months of its constitution.

2.4.3 No more incentive to Government employees will be considered. A suitable package of disincentives will be developed for this section of the society for adoption by the State Govts. as well. It will also be recommended to the employers in the organised sector.

2.4.4 Motivators fee etc. presently being paid to service providers will not be paid any more as it also leads to emphasis on achievement of specific methods of contraception.

2.4.5 States Award Scheme already decided to be scrapped retrospectively w.e.f. the financial year 1988-89, would not be revived as it had been leading to falsification of figures and unhealthy competition. However, suitable incentives to encourage good performance shall be built in the proposed modified scheme of compensation.

2.4.6 An innovative package of incentives/disincentives would be formulated with emphasis on community based incentives and social security measures for individuals adopting small family norm. The community based incentives would be linked to various benefits being made available to the public under different socio-economic development plans of the Government.



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## 2.5 Promotion of Different Contraceptive Methods/Devices

2.5.1 Sterilisation procedures were the mainstay of the programme in the past. However, acceptors have generally been the higher age and the high parity couples who have already completed the desired family size. The contribution of sterilisation to the fertility decline, therefore, has been less than anticipated. While sterilisation would continue to play an important role in the population control efforts, it would be ensured that the profile of the acceptors would be of the right quality in terms of age and number of children already born.

2.5.2 Spacing methods will be vigorously pushed for adoption by the younger age couples with high fertility potential. This would require good follow up services for acceptors of IUD insertions to bring down the drop out rates, improvement in the distribution arrangements of conventional contraceptives and oral pills in rural areas and urban slums though strengthening of schemes for social marketing of contraceptives and launching of community based distribution of contraceptives. The free distribution schemes which are somewhat wastage-prone would be gradually curtailed and limited only to such areas where these are actually needed for economic reasons or for lack of outreach of social marketing/community based distribution programmes.

2.5.3 The quality of contraceptives would be improved. In this regard supply of dry condoms under the free distribution scheme would be gradually phased out and only lubricated condoms made available.

2.5.4 The production arrangements for weekly oral pills (Centchroman) and oral contraceptive pills (Mala N and Mala D) shall be gradually improved so as to make these easily available across the length and breadth of the country in greater numbers.

2.5.5 In order to give a wider choice of contraceptives to the acceptors, new contraceptives such as Norplant-6 and injectibles shall be introduced under the programme, initially under controlled conditions and gradually on a wider scale.

## 2.6 Universal Immunisation Programme and MCH Programme

2.6.1 Consistently high coverage are being now reported from most of the States in the UIP. However, there still remain areas where the coverage levels are low. Social attention would be focussed on such areas during the coming years, while sustaining the high level of coverage achieved elsewhere.

2.6.2 All such cases where reported coverage are more than 100% of the target fixed, the reasons for high coverages would be routinely investigated to ensure that no over-reporting is allowed as this would otherwise lead to a sense of complacency leading to outbreak of the vaccine preventable diseases.

2.6.3 The ultimate objective being reduction of vaccine preventable disease, the priority in the coming years would be to concentrate on the quality aspects of the services delivery and on documenting reduction in disease incidence. The following activities in this context would be strengthened :

- a) Initiate active surveillance in areas where low incidence has been recorded in the last two years. List of cases, particularly of Polio and neo-natal tetanus would be the lead diseases under monitoring.
- b) Set up network of Polio Virus Isolation Laboratories while increasing the number of field samples of Oral Polio Vaccine to ensure that atleast one full sample is lifted from every Primary Health Centre area in a year.
- c) Time-bound investigation of all adverse reactions following vaccination.



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2.6.4 For overall improvement in the management of the programme, all supervisory posts created so far particularly that of the District Immunisation Officers and Refrigeration Mechanics would be filled up by the States/UTs.

2.6.5 All States/UTs would also take priority action to take over the maintenance of the cold-chain created over the last 4-5 years and further planned to be strengthened in the coming years.

2.6.6 About 1.5 million children below 5 years of age die because of Diarrhoea in the country every year. Even though the Oral Rehydration Therapy Programme is being implemented for quite some time now, it has met with only partial success. There are still many medical practitioners who are not propagating it or prescribing ORS. The programme would be more vigorously promoted through the training of medical and para-medical personnel and through health education to people, particularly mothers.

2.6.7 Keeping in view the Health for All goal by 2000 A.D. a new Child Survival and Safe Motherhood Programme is proposed to be implemented with IDA/UNICEF assistance in a phased manner. It would provide for universalisation of IFA to cover all pregnant mothers, universalisation of Vit. 'A' to all children upto the age of 3 years, expanding the pilot project on control of Acute Respiratory Infections and strengthening primary health care infrastructure coupled with an intensified training of traditional birth attendants in the higher IMR/MMR States of Assam, Bihar, Orissa, Madhya Pradesh, Rajasthan and U.P. It is expected that this Project would not only help in lowering the IMR/MMR and child mortality rate but would also contribute significantly to improve the family welfare services.

## 2.7 Urban Area Schemes

2.7.1 The Schemes like Post-Partum Centres, Urban Family Welfare Centres, Health Posts are designed to provide Family Planning and Maternal and Child Health Care services to population living in the urban areas including slum areas. While the post-partum centres have generally become hospital based programmes and are not effectively catering to the areas/populations attached to them, the quality and outreach of services being provided by the Urban Family Welfare Centres/Health Posts are also not satisfactory. This has resulted in a situation in which the F.P. and MCH services are not effectively reaching the urban slums population which is an area of major concern. The following steps would be initiated :

- a) With a view to strengthen infrastructure and services, Urban Revamping Schemes covering towns with 2 lakh population and above with special focus on slum areas are already being developed. The operationalisation of these schemes would be expedited with adequate funding support from central budget and external agencies.
- b) The involvement of voluntary organisations in catering to the needs of slum population will be enhanced. Preference would be given to voluntary groups already active in such areas.
- c) The urban institutions whether under the Government or in the voluntary sector will be closed down or shifted elsewhere in case an optimum level of performance is not recorded. It would be ensured through proper monitoring and supervision mechanisms that these institutions do seriously endeavour to meet the respective programme objectives, particularly those related to serving the target population assigned to each. Adequate flexibility would be given to States/UTs to meet these objectives.
- d) Suitable coordinating mechanisms would be developed to ensure that the urban institutions function in an integrated manner and not in total isolation of each other and the overall programme objectives.



## 2.8 Village Health Guide Scheme

There is a general impression that this important scheme designed to provide for the basic linkage between the community and the Health & Family Welfare Service delivery system, is not working well. VHGs are presently getting only Rs.50/- p.m. as honorarium and in most parts of the country, they are not rendering much service to the community. Some States (J. & K., Tamil Nadu, Kerala) did not implement the scheme from the very beginning and some others like Assam and Haryana have scrapped it. The decision to replace male health guides with female health guides has also led to a plethora of writ-petitions in different High Courts. The general experience has been that wherever female health guides are in position, the ground situation of service delivery is much better.

### 2.8.1 The following steps would be taken :

- a) All the pending court cases would be effectively followed up and got decided on a priority basis.
- b) The existing number of Village Health Guides shall be fully utilised by States/UTs with reduced functions, if necessary. Their services may primarily be utilised as motivators and depot-holders for contraceptives, Oral Rehydration Salts, IFA tablets etc.
- c) The possibility of revitalisation of the scheme to make it more effective or alternatively of disbanding it would be examined further taking into account the varied implications including from the legal angle.

## 2.9 Continuation of ANM/LHV Training Schools

There are a large number of ANM/LHV/MPW (M) Training Schools in different parts of the country. As regards ANM/LHV training, many States/UTs have already fulfilled targets of recruitment and basic training of workers. In so far as the scheme of training of Health Worker (Male) is concerned, most States have stopped training as fresh recruitment is not taking place. There is a large number of vacancies of MPW (M) in different States/UTs which has caused serious concern.

### 2.9.1 The following steps would be taken

- a) The existing infrastructure of ANM/LHV Training Schools would be thoroughly reviewed for each State/UT to ensure its proper and effective utilisation. Schools without buildings and those being run through voluntary organisations shall be closed down gradually. The remaining schools will be utilised for running integrated training modules for para-medical workers, including of voluntary sector, and for continuing education programmes.
- b) States/UTs would initiate action to create posts of MPW (M) to meet the existing gaps in a phased manner and effectively utilise the available training infrastructure.
- c) Net working arrangements of training institutions at different levels would be developed with a view to ensure uniformity in training modules, avoid duplication and bring about effective coordination.

## 2.10 Information, Education, Communication

Information, Education and Communication (IEC) inputs need to be revitalised not only to propagate the Family Welfare Programme but also to bring out attitudinal changes so as to cover a part of the ground which should be normally prepared through education and social work. The new IEC strategy would have the following key elements:

- a) The IEC message would be to associate Family Welfare with planned parenthood and not just with the adoption of contraception.



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- b) The messages would be positive with thrust on quality of life issues and removal of ignorance, apathy and misgivings about the Family Welfare Programmes.
  - c) In order to involve the community in generating demand for Family Welfare services, the Scheme of Mahila Swasthya Sangh which has been recently introduced in some selected districts would be further strengthened in case the results are found to be encouraging.
  - d) The messages through the Mass Media would be of a balanced nature so that these do not harm sensibility in our socio-cultural ethos.
  - e) In order to cover 40% of the population which is not covered by any mass media presently, special attention shall be paid on traditional art forms, folk-lore, field publicity and inter-personal communication. Feature films with entertainment value would be developed for being shown on 16 mm projectors for conveying the required messages in a suitable manner.
  - f) Increased emphasis would be laid on development of media material in a decentralised manner so that these are produced taking into account the regional diversities in the country and local specific needs.
  - g) Regular training of IEC staff at different levels would be undertaken to expose them to latest IEC techniques, improving their motivation and administrative/managerial abilities.
  - h) The funds provided for media activity would be in no case diverted as is happening in some States presently. The importance of IEC activities in achieving the desired goals would need to be fully realised by the States/UTs.
  - i) IEC efforts would increasingly focus on the need for participation of males in adopting contraception with a view to remove misgivings about the vasectomy, which is a much simpler procedure than the female sterilisation.
  - j) The Rajasthan experiment of integrating the IEC activities of the entire H & FW Sector and developing linkages with other sister Departments for a coordinated IEC effort has been noted to be leading to better achievements. Other States/UTs may like to study this experiment for possible replication.

## 2.11 Involvement of Non-Governmental Sector

For supplementing the efforts of the Government, it is necessary to involve the non-Governmental organisations and voluntary agencies in a very big way. Even though the need for this has been realised for quite some time with a view to make the Family Welfare Programme a people's movement, harsh reality is that so far the contribution from the non-Governmental Sector is rather limited and the programme is perceived by the people as the Government's programme. Voluntary sector and NGOs can not only supplement the family welfare services provided by the Government but also it is expected that they would have a better understanding of how to bridge the communication gap with the people and take the message of small family and Maternal and Child Health to them in the language they understand.

2.11.1 Instead of waiting for a voluntary agency to approach the Government for assistance, it would be necessary to identify local level individuals (youths in the villages, panchayat level leaders, private medical practitioners including TSM practitioners, ex-servicemen, retired Govt. servants with a social conscience etc.) to motivate them to participate in the family welfare programme, impart training to them and involve them either individually or collectively for generation of demand for the family welfare services and propagation of small family norm.

2.11.2 The network of cooperative sector institutions, organised sector, trade unions, Zilla Parishads, municipal corporations, panchayats, etc. would be fully involved in the implementation of family welfare programmes in a systematic manner.

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2.11.3 Increased powers to sanction schemes for non-Governmental sector would be delegated to the States/UTs which may further be delegated to the district level with a view to expedite the sanction of schemes and also because the actual work of identifying and encouraging the voluntary workers at grassroot level, necessarily will have to be done by the district officers and other officers of the State Governments in this field.

2.11.4 In view of the fact that the NGOs in some States/Areas have achieved exceedingly good results, visits of NGO workers from the poor performance States/Areas would be arranged to a good performance State/Area. Further, the available infrastructure would also be utilised for training of voluntary sector workers to improve their administrative, financial and managerial abilities.

2.11.5 In order to have the desired impact of the eliciting participation of voluntary and NGOs, a suitable organisation would be evolved at central level which will have the desired degree of flexibility in sanctioning schemes and ensuring smooth flow of funds.

2.11.6 Increased allocations would be made in the Central Budget for implementation of Family Welfare Programmes through NGOs/voluntary sector and receipt of external assistance for this sector would be considerably stepped up.

## **2.12 Inter Sectoral Coordination**

One of the key points which always needs to be kept in view is the distinction between the Family Welfare activities and the population control programme. Control of population is dependent on a variety of factors, many of which go beyond the sphere of the family welfare sector, but which have an equal and perhaps even more important bearing on the birth rate. In fact, the Family Welfare Department in the Governments are organisations which should be essentially viewed as Supply Departments for making available the family welfare services, but the demand for these services and the motivating for population control comes from factors such as female literacy rate, age at marriage of girls, the status of women, position of employment of women, social security and general level of economic development. These are well beyond the pale of activities of Department of Family Welfare.

2.12.1 There is need to have an institutional mechanism at the centre for inter-sectoral coordination particularly between the Ministry of Health and F.W., Ministries of Human Resources Development, Finance, Information & Broadcasting, Environment & Forests, Labour, Deptt. of Woman & Child Development and the Deptt. of Rural Development. A suitable institutional mechanism would be evolved at the central level to achieve the desired level of inter-sectoral coordination and similar mechanisms would be developed at the State level.

2.12.2 At the State level, the Chief Secretaries would be involved personally in making the Family Welfare Programme a success. At the district level, Deputy Commissioners, Chief Executive Officers of the Zilla Parishads, would be involved in a greater way not to push the target achievements in a routine manner but to achieve inter-sectoral coordination of different Departments whose activities have a direct bearing on family welfare programme performance.



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## POPULATION CONTROL : CHALLENGES AND STRATEGIES

The population explosion, which is undermining all our efforts towards socio-economic development of the country is perhaps the single most pressing problem being faced by it. The recent Census has revealed that while there has been a marginal decline in the rate of growth of population (from 2.22 percent in 1971-1981 decade to 2.11 percent in 1981-1991 decade), still the growth rate of about 2 percent annum is very high. If the population growth continues as at present, the country will have about 100 crores people by the turn of the century and the population will double to about 170 crores by 2024 A.D. Such a large population would be virtually unmanageable and, despite best efforts, it would not be possible to provide even the basic necessities of life to the people at large. Such relentless population growth would also create havoc to our environment and lead to ecological crises. It is, therefore, imperative that the highest priority is accorded to population control.

The experience of pursuing the Family Planning Programme (which is now being implemented as Family Welfare Programme with mother and child health care being its integral part) over the last four decades has brought out the importance of taking a holistic approach towards population control and not consider it only the responsibility of the organisations set up for providing family welfare services. It is clear that the factors indicated below have a very important bearing on the success of the Family Welfare Programme and efforts being made towards control of population.

- i) **Social factors, such as female literacy, age of marriage of girls, status of women, strong son preference, position of employment of woman etc.** Therefore, the work which needs to be done by the Ministry of Human Resources Development, Education Departments of the States, Social Welfare Department at the Centre and States, the Department of Women and Child Development and voluntary and social organisations for promotion of the right social characteristics is of as much importance for population control as the family welfare services provided by the Health & Family Welfare Departments at the Centre and in the States/UTs.
- ii) **Infant mortality and mother and child health care.** If infant, child and maternal mortality are brought down and the people have the confidence that their infants and children would survive, they would be more responsive to the message of adoption of the small family norm. Therefore, the Universal Immunisation Programme, which was launched in 1985 and the new programmes, which are being envisaged for improving the mother and child health care, are of crucial importance.
- iii) **The quality of health & family welfare services provided by the State Governments/UTs Administration.** While funds for the Family Welfare Programme are provided by the Centre through centrally sponsored schemes, its implementation in the field is done by State Governments and UTs Administration. The quality of implementation of the Family Welfare Programme varies markedly from State to State. Even though the Family Planning/Welfare Programme has been pursued in the country as a whole from 1951, there are marked variations in its impact from State to State. Selected demographic indicators relating to fertility decline in various States and UTs are indicated in Annex. I. At the one end of the spectrum we have States like Goa, Kerala and Tamil Nadu where crude birth rate has now come down to 15.7 to 23.1 per thousand, while on the other end there are four large States of North India, Uttar Pradesh, Madhya Pradesh, Bihar and Rajasthan, where the crude birth rate is still in the range of 34.2 to 37 per thousand. If the country as a whole has to achieve its objective of balanced population growth, the poor performing States would have to make special efforts to show a marked improvement in their performance and in particular, improve the quality of health & family welfare services provided by them.
- iv) **Political will and administrative support.** For the success of the Family Welfare Programme, it is of crucial importance that there is the requisite political will and sustained administrative support. The need of the hour is that at every level of political leadership there is commitment to work for the success of the Programme with a missionary zeal. This is demonstrated by the success of the Family Welfare Programme in Tamil Nadu, where even though social factors like female literacy, etc. are not as advantageous as in Kerala and Goa and in fact are at par with many other States, there has been a marked success in reducing the crude birth rate on account of sustained political and administrative support.



For achieving the objective of a balanced population growth by the year 2000 A.D., certain targets were laid down in the National Health Policy adopted by the Parliament in 1983. These targets and the current levels of achievements against them are indicated below :

	Targets to be achieved by 2000 A.D.	Current level of achievement
a) Population growth rate	1.2 percent	2.03 percent (1989)
b) Crude birth rate	21/thousand	30.6/thousand (1989)
c) Crude death rate	9/thousand	10.3/thousand (1989)
d) Infant mortality	60/thousand	91/thousand (1989)
e) Couple protection rate	60 percent	44.1 percent (1.4.91)

With the current rate of progress towards achievement of the demographic objectives laid down in the National Health Policy, it does not appear possible to realise all the targets laid down in the National Health Policy by 2000 A.D. It should of course be possible to bring down the crude death rate to 9 per thousand and infant mortality to 60 per thousand as a result of the improvement in the health services and launching of programmes for mother and child health care. However, the requisite fall in the birth rate to 21 per thousand and the consequent reduction of population growth rate to 1.2 percent do not appear feasible. Indeed, even if the targets of lower birth rate and population growth laid down in the National Health Policy for 2000 A.D. are to be achieved by 2005 A.D., a very major effort for imparting dynamism to the Family Welfare Programme and bringing about a holistic approach to population control through demonstration of the requisite political will and extension of sustained administrative effort would be required.

In the recent months, the Family Welfare Department at the Centre has taken a number of initiatives with a view to imparting the requisite dynamism to the Family Welfare Programme. As the Programme is implemented in the field by the State Governments and UTs Administration, care has been taken to evolve a new Action Plan with their concurrence and to take them along at every step of formulation of new initiatives. A meeting of Secretaries incharge of Family Welfare of all States and UTs organized on the 29th-30th August, 1991 and with the consensus of all participants in the meeting, a draft Action Plan has been formulated for imparting the requisite momentum to the Family Welfare Programme. The draft Action Plan has been sent to Chief Secretaries of all States and UTs vide the D.O. letter No.N.23011/7/90-Policy dated 24th September, 1991 of Cabinet Secretary. It is proposed to convene a meeting of all Health Ministers shortly for a final endorsement of the draft Action Plan before it is adopted for urgent implementation. The main features of the Action Plan are as follows :

- i) Improving the quality and out-reach of family welfare services in the field.
- ii) A new package of compensation/incentive funds to be targeted to reduction in the actual birth rate, giving more flexibility to State Governments/UTs Administration in managing the programme, rather than being based only on the figures of sterilizations etc. furnished by them.
- iii) Initiating innovative programmes in urban slums for propagating family welfare activities.
- iv) Launching the "Child Survival and Safe Motherhood Project" this year, aiming to give tremendous boost to the Univesal Immunization Programme and Control of diseases causing death of infants and children and to initiate practices for safe motherhood for bringing down maternal mortality.
- v) Adopting a Differential Strategy for focussing attention on 90 districts of the country where the crude birth rate is above 39 per thousand. The list of these districts is placed at Annex II.
- vi) Improving the quality of existing contraceptives and introduction of new contraceptives.



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- vii) Improving the distribution of contraceptives through expansion of the scope of the social marketing scheme.
  - viii) Increased involvement of voluntary agencies and non-governmental organisations in the Family Welfare Programme through procedural simplification and delegation of powers with a view to making the Programme a people's movement.
  - ix) Increased Information, Education and Communication inputs and decentralisation of communication strategies to take into account the local socio-cultural ethos.
  - x) Strengthening the inter-sectoral coordination mechanism by setting up a high level body for this purpose at the Centre and involvement of Chief Ministers, Chief Secretaries and District Collectors in the implementation of the Population Control Programme. If the high level body at the Centre for periodical review and facilitating inter-sectoral coordination is headed by the Prime Minister himself and similar bodies headed by Chief Ministers are set up at the State level, the message of the will and determination of the Government towards achieving control of population will be passed on down the line more effectively and there will be tremendous benefit for this cause.

Apart from urgent and proper implementation of the Action Plan which has been evolved through close interaction with the States and Union Territories, it is important that the requisite financial support is provided for implementation of the Family Welfare Programme. In the past, the Programme has run into some difficulties, as the Plan allocations have not been sufficient for the maintenance of the existing Health & Family Welfare infrastructure through which the Programme is implemented in the field. What is more, as health care to the poorest sections of the society and at the grassroot level in the rural area is provided through this infrastructure, non provision of adequate funds have deprived the most vulnerable sections of the society from getting the minimal basic health care. In the 8th Five Year Plan period, population control needs to be a thrust area and even in the fact of the existing constraint of resources, the requisite funds need to be made available for maintenance and running the existing Health & Family Welfare infrastructure smoothly. Additional funds required to support the new initiatives for imparting dynamism to the Family Welfare Programme have also to be made available. The State Governments and UTs, Administration too need to streamline their systems of flow of funds right upto the grassroot levels for proper implementation of the Family Welfare Programme. It is emphasised that the most crucial factor for the success of the Programme in the future is the improvement in the quality and out-reach of health & family welfare services and the financial and administrative support required to run these services efficiently.

Apart from the steps envisaged in the Action Plan indicated above, some other new initiatives also deserve careful consideration. It is felt that there will be tremendous impact of the Family Welfare Programme, if realistic incentives and disincentives could be made available to State Governments and communities for encouraging the small family norm. Some of the incentives and disincentives, which need to be considered are, as follows :

- (a) A consensus may be evolved for linking the Central Assistance for States/UTs to their performance in controlling the actual birth rate.
  - (b) Several thousand crores of rupees are made available to the States and UTs every year for rural development, poverty alleviation programmes etc. Considerable portion of this money is released to the Rural Development Agencies directly. Keeping a certain base year, a system of incentives and disincentives can be worked out, so that additional money is made available to districts and panchayats on the basis of their performance towards the control of birth rate.
  - (c) The strong son preference in many parts of the country is coming in the way of adoption of small family norm. This in turn is linked to the requirement of social security by people, as sons are expected to look after their parents in their old age. Innovative schemes, which have been started in Maharashtra and Gujarat, of giving long term financial bonds on the basis of sterilization after the birth of one or two daughters need to be encouraged widely and the requisite financial support found for them in the 8th Five Year Plan.
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(d) For putting across the message to the people that there is a political consensus in regard to population control and the nation as such is serious towards adoption of the small family norm, a legislation could be brought before the Parliament indicating that no person, who has more than two children, could hold an elected office from the Panchayat to Parliament in the future.

The present population scenario in the country is no doubt grim. Moreover, as population control involves sustained multi-disciplinary efforts, the task is undoubtedly very challenging. However, it is by no means an impossible task. Many other countries who started the Family Planning Programme much after India with even worse demographic profiles, have achieved considerable success in controlling population through single minded determination, political will, sustained administrative support, undertaking imaginative programmes and involvement of people. If a national consensus is evolved towards a frontal attack on the population problem and the measures suggested in this note are implemented faithfully through political will and sustained administrative effort, there is no reason why our country too would not be able to reach the goal of achieving a balanced population growth in not too distant a future and thus have a sound base for socio-economic development and improvement in the quality of the life of our people.



ANNEXE - I  
**SELECTED INDICATORS**

Sl.No.	State	Couple Protection Rate (31.3.91) \$	Crude Birth Rate (1990) \$	Infant Mortality Rate (1990) \$	Female Literacy Rate (1991 Census)	Age at Marriage (Female) (1981 Census)
<u>Major States</u>						
1.	Andhra Pradesh	44.3	25.6	70	33.7	17.3
2.	Assam	28.2	27.5	77	43.7	*
3.	Bihar	26.8	32.9	75	23.1	16.6
4.	Gujarat	57.8	29.5	72	48.5	19.5
5.	Haryana	56.6	31.8	69	40.9	17.8
6.	Karnataka	46.9	27.8	71	44.3	19.2
7.	Kerala	55.6	19.0	17	86.9	21.8
8.	Madhya Pradesh	40.3	36.9	111	28.4	16.6
9.	Maharashtra	56.2	27.5	58	50.5	18.8
10.	Orissa	41.0	29.9	123	34.4	19.1
11.	Punjab	75.8	27.6	55	49.7	21.1
12.	Rajasthan	29.0	33.1	83	20.8	16.1
13.	Tamil Nadu	57.3	22.4	67	52.3	20.3
14.	Uttar Pradesh	35.5	35.7	98	26.0	16.7
15.	West Bengal	33.7	27.3	63	47.1	19.2
<u>Smaller States &amp; UTs</u>						
1.	Himachal Pradesh	52.1	27.0	68	52.5	NA
2.	J. & K.	21.1	31.4	70	NA	NA
3.	Manipur	26.2	21.0	--	48.6	NA
4.	Meghalaya	5.0	31.8	--	44.8	NA
5.	Nagaland	4.8	16.2	--	55.7	NA
6.	Sikkim	20.6	26.4	--	47.2	NA
7.	Tripura	17.6	24.7	--	50.0	NA
8.	A & N Islands	42.3	21.0	--	66.2	NA
9.	Arunachal Pr.	10.5	29.7	--	29.4	NA
10.	Chandigarh	41.8	17.7	--	73.6	NA
11.	D & N Havelli	47.5	35.9	--	26.1	NA
12.	Delhi	40.4	22.8	--	68.0	NA
13.	Goa	34.0	15.5	--	68.2	NA
14.	Daman & Diu	30.2	27.3	--	61.4	NA
15.	Lakshadweep	8.6	25.6	--	70.9	NA
16.	Mizoram	41.4	NA	--	78.1	NA
17.	Pondicherry	60.6	19.9	--	65.8	NA
<b>All India</b>		<b>44.1</b>	<b>29.9</b>	<b>80</b>	<b>39.4</b>	<b>18.3</b>

\* : Census not done in Assam in 1981.

NA : Figures are not available.

\$ : Provisional.

ANNEXE - II  
SELECTED INDICATORS FOR 90 DISTRICTS WITH CBR  $\geq$  39

STATE	DISTRICTS	Sex ratio (per 1000 males)	% age of literate (Female)	Mean Age at marriage	Non- agri. Labour as % of main workers	CBR	IMR
BIHAR	1. Nawada	1,002	12.77	14.7	4.9	39.85	95
	2. Saharsa	930	9.16	15.7	2.8	40.61	113
	3. Samastipur	972	12.77	15.9	12.4	39.09	107
	4. Katihar	928	11.34	16.2	6.8	39.61	115
	5. Gaya	962	15.25	15.4	6.3	39.82	101
GUJARAT	6. Kachchh	999	26.68	18.2	22.7	39.38	89
	7. Banaskantha	945	11.36	18.5	17.3	40.80	94
HARYANA	8. Bhiwani	898	16.30	16.1	10.3	39.40	86
KERALA	9. Malappuram	1,052	55.34	17.8	32.3	39.32	49
MADHYA PR.	10. Sehore	907	9.78	14.8	8.9	40.77	146
	11. Rewa	969	11.35	14.4	8.1	40.55	173
	12. Guna	882	9.26	15.0	16.3	42.03	150
	13. Damoh	925	16.52	14.8	48.4	42.94	150
	14. Gwalior	845	25.98	15.8	46.3	40.71	118
	15. Panna	913	8.66	15.0	14.3	45.54	185
	16. Raisen	908	11.51	14.9	15.8	42.62	135
	17. Hoshangabad	908	21.88	15.5	18.1	40.89	163
	18. Vidisha	881	13.07	14.9	23.6	43.35	144
	19. Tikamgarh	883	8.44	14.3	9.2	44.48	195
	20. Bhind	827	14.67	14.7	25.3	40.17	129
	21. West Nimar	954	12.19	16.4	6.5	39.73	137
	22. Sagar	891	21.11	14.8	57.5	43.23	164
	23. Jhabua	985	6.35	17.9	4.5	42.65	116
	24. Bhopal	874	37.38	16.9	58.2	39.61	82
	25. Shivpuri	855	8.12	14.8	9.7	41.58	150
	26. Betul	973	17.42	16.9	7.2	40.69	158
	27. Chhatrapur	864	10.24	14.5	15.4	42.19	182
	28. Morena	834	10.09	14.8	15.2	44.57	132
	29. East Nimar	939	18.91	16.1	10.0	39.65	131
	30. Datia	853	12.26	14.8	20.3	39.97	156
	31. Dhar	966	10.27	16.3	4.4	39.39	116
	32. Satna	936	13.26	14.8	17.4	41.20	181
ORISSA RAJASTHAN	33. Balasore	977	28.26	16.2	24.0	41.69	132
	34. Jodhpur	909	14.47	16.4	15.7	41.55	86
	35. Udaipur	977	10.76	15.8	22.4	40.65	120
	36. Sawai Madhopur	867	8.16	15.1	14.4	43.34	141
	37. Kota	888	17.39	15.2	36.8	40.14	112
	38. Jhalawar	926	9.27	14.7	8.6	40.16	124
	39. Jalor	942	4.43	17.3	10.6	41.59	104
	40. Dungarpur	1045	7.97	16.5	21.6	45.12	111

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	41.	Bharatpur	831	10.08	16.0	30.9	44.02	147
	42.	Banswara	984	7.50	16.9	18.0	42.39	108
	43.	Ajmer	922	21.92	15.4	23.4	39.08	125
	44.	Sirohi	963	9.92	17.1	29.6	39.75	121
	45.	Ganganagar	874	14.16	16.8	26.2	39.15	82
	46.	Jaipur	894	17.18	15.2	24.5	41.62	108
	47.	Sikar	963	9.08	15.0	17.2	41.00	95
	48.	Bikaner	891	17.57	15.4	35.4	41.32	62
	49.	Pali	946	8.83	16.2	12.7	40.14	130
	50.	Barmer	904	3.71	16.9	14.1	41.45	102
	51.	Alwar	892	11.38	16.0	19.2	41.36	128
UTTAR PR.	52.	Bundi	887	8.92	14.4	21.6	40.68	125
	53.	Nagaur	958	7.11	15.3	6.8	41.46	96
	54.	Jhunjhunun	956	11.40	15.5	12.9	39.98	92
	55.	Tonk	928	8.28	14.0	19.1	43.65	148
	56.	Churu	954	9.81	15.3	7.4	42.08	81
	57.	Farrukhabad	821	19.06	16.3	81.4	39.49	122
	58.	Pratapgarh	1,001	8.81	14.8	7.4	40.15	126
	59.	Mainpuri	821	18.49	16.1	58.5	39.52	121
	60.	Banda	860	8.61	15.8	7.1	39.85	98
	61.	Azamgarh	1,020	12.20	15.2	19.2	40.20	110
	62.	Shahjahanpur	812	10.79	16.4	59.2	40.44	167
	63.	Tehri Garhwal	1,081	9.42	16.8	1.3	41.18	99
	64.	Hardoi	821	9.52	16.5	38.7	42.16	173
	65.	Moradabad	842	10.93	17.4	74.1	42.47	126
	66.	Aligarh	840	16.24	16.7	57.1	40.56	129
	67.	Lalitpur	851	9.96	14.5	26.8	42.31	138
	68.	Pilibhit	841	9.32	16.7	54.1	39.89	147
	69.	Deoria	981	9.07	16.1	7.8	39.97	120
	70.	Bulandshahar	863	13.34	16.8	49.1	40.59	127
	71.	Gorakhpur	940	10.36	15.2	9.1	40.41	123
	72.	Badaun	801	7.54	16.5	56.7	41.06	155
	73.	Saharanpur	832	18.06	17.6	59.9	39.24	96
	74.	Sitapur	841	8.38	16.4	33.2	39.43	143
	75.	Basti	921	7.94	15.0	9.5	41.29	164
	76.	Sultanpur	970	9.37	14.9	9.3	40.87	151
	77.	Etah	821	13.10	16.4	60.6	39.67	170
	78.	Jaunpur	1,001	10.89	15.2	12.5	41.83	118
	79.	Agra	821	19.92	16.6	75.6	41.07	115
	80.	Bareilly	330	12.33	16.8	79.2	39.80	146
	81.	Gonda	890	5.45	15.4	7.8	39.69	157
	82.	Allahabad	890	12.81	16.5	16.3	39.69	110
	83.	Nainital	841	27.10	17.0	17.2	39.43	93
	84.	Neerut	831	20.3	17.1	64.3	39.76	102
	85.	Bijnor	863	14.76	17.9	76.7	42.93	120
	86.	Raebereli	940	10.47	15.7	8.7	40.92	172
	87.	Chaziabad	821	21.32	16.9	69.5	40.50	114
	88.	Rampur	843	8.88	17.4	70.9	43.62	150
WEST BENGAL	89.	Maldah	949	14.22	15.9	43.8	41.29	128
	90.	Murshidabad	959	17.75	15.9	81.8	39.84	104

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## **DOCUMENTS :**

### **\* STRATEGY NOTE**

- OPPORTUNITIES AND CHALLENGES OF  
NATIONAL FAMILY PLANNING PROGRAMME  
IN INDIA DURING 1990.
- INDIAN COUNCIL OF MEDICAL RESEARCH,  
NEW DELHI.

### **\* STRATEGIES FOR PROMOTION OF CHILD SPACING METHODS**

- NATIONAL INSTITUTE OF HEALTH & FAMILY WELFARE,  
NEW DELHI.
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## STRATEGY NOTE

# OPPORTUNITIES AND CHALLENGES OF NATIONAL FAMILY PLANNING PROGRAMME IN INDIA DURING 1990

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*"The true essence of progress is in the perception of mankind of its future achievements"*

Francis Bacon

India was the first country in the world to have started the National Family Planning Programme (NFPP) in the 50s. However, the impact of this programme has not been significant as the high birth rates have been stagnating from the last decade (around 31 per 1000 population) coupled with high maternal (about 4 to 7 per 1000 live births) and infant (around 90 per 1000 live births) mortality rates along with their associated morbidities. Several reasons are responsible for the lack of impact, for example - unachievable targets were set and too much emphasis was given on "hardware" i.e. technology rather than understanding that family planning also requires "software" i.e. human touch and understanding.

The National Family Planning Programme has so far utilized demographic rationale along to reduce the fertility levels in the country, over-riding all other considerations leading to mechanistic implementation of family planning services. To achieve the targets, incentives have been provided which at times verge on "socio-economic" and "psychological" coercion.

Whenever a single method is offered in the family planning programme such as the sterilization in India or IUDs in Taiwan, it is inadequate to meet the needs of diverse group of the society, as well as for achieving the national demographic goals. There is enough evidence to indicate that whenever, a variety of contraceptive technologies are made available through multiple channel of outlets, both the acceptance and the continuation rates of family planning method markedly improve.

Female sterilization still remains the sheet anchor of our National Family Welfare Programme. Its acceptance by high parity women (mean parity 3.6) at the age of 29 years should not surprise anyone for the lack of demographic impact by the sterilization based family planning programme. The mean age of IUD acceptors is 26 years with 2.6 average number of children and there is hardly any use of oral pills in the national programme.

This indicates that in order to achieve necessary demographic impact, special efforts will be required to promote IUDs and oral pills as well as utilize other newer spacing methods in the national programme, such as subdermal implants, injectables and vaginal rings which can be used by younger couples either newly married or low parity couples.

There is also evidence to indicate whenever there is significant improvement in the quality of services including informed choice of the user of a particular contraceptive technology, the performance of family planning programme improves. The name of National Family Planning Programme was changed to National Family Welfare Programme to cover the health of the mothers and the children, in late 1970s. However, recent evaluation of ICMR of 398 Primary Health Centres (PHCs) in different parts of country indicates that the quality of family welfare services as currently being offered in the National Family Welfare Programme remains poor at the PHC level with MCH component substantially weak in most instances. Similarly, ICMR evaluation of other MCH programmes indicate that the quality and coverage under the National Anemia Prophylaxis Programme (NAPP) as well as under the Universal Immunization Programme (UIP), remains poor. In spite of legalization of Medical Termination of Pregnancy (MTP) since 1972, the ICMR studies indicate that incidence of illegal abortion has not shown any decline.



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To improve both the quality and coverage of the various components of National Family Welfare Programme, the ICMR had initiated an 8 centre study in 1986 on "Comprehensive MCH Care Using Risk Approach Strategy", in the states of Uttar Pradesh, Madhya Pradesh, Rajasthan, Haryana, Maharashtra and Gujarat. The study was done with the active collaboration and support of the State Health Authorities, where the major interventions were (i) Reorientation training of medical and paramedical workers for "At Risk Approach to MCH care", (ii) Health education to improve community awareness and participation, (iii) Development of a referral system from primary to tertiary level of health care. The data indicated that there was a significant improvement of the various components of MCH Programme using the above approach, within the existing health care delivery system. This included the care of the pregnant mother and newborn children as well as NNAP and UIP programmes. This study with slight modifications has been expanded to other parts of the country through the ICMRs network of 33 Human Reproduction Research Centres (HRRCs) which are located in the medical colleges as well as has been upscaled to the District level at 4 centres in UP, MP and Rajasthan.

## **CURRENT STATUS OF CONTRACEPTIVE TECHNIQUES :**

There are two basic assumptions on which the research and development of contraceptive technologies depend. The first assumption is that there will be no single perfect method suitable for all men and women, therefore a variety of safe and effective methods are required. The second assumption is that they can be improved substantially mostly in terms of their safety and acceptability, and to a lesser extent in terms of their efficacy. One must also keep in mind that it takes a minimum of 10-15 years with total cost ranging from US \$ 50 million to 75 million, for the research and development necessary to move the contraceptive discovery from the laboratory stage to wide spread clinical use. There is also a great need to forge effective bonds between the contraceptive users, organizations of users, scientists, industry and government. If we are to take into account the real contraceptive needs of the future, a close interaction of epidemiologists, social scientists and economists is necessary between the demographic planners/policy makers on one hand and researchers of reproductive biology/contraceptive technology on the other hand.

Based on our current knowledge of global as well as national efforts of contraceptive research, an attempt has been made briefly to describe the identification of potential contraceptive methods on the basis of their likely availability or not in India during 1990s.

## **METHODS LIKELY TO BE AVAILABLE BY THE MID - 1990s :**

In this category, the new methods are mainly the modifications of existing contraceptive technologies and thus, do not require any major new scientific break-through. The work which remains to be done is more related to the safety (including pre-clinical toxicology), clinical efficacy and acceptability of the new product.

### **Improved intra-Uterine Devices :**

The Copper T 200 IUD is already in use in the national family planning programme, which provides adequate contraceptive protection upto 4 years. The other copper devices such as CuT 380A have better efficacy and longer life spans depending upon their copper content i.e. at least 8 years, but their continuation rates have not significantly improved as the common side effects such as bleeding, pain or expulsion continue to occur. IUDs releasing different types of hormones such as levonorgestrel have reduced the menstrual blood loss as compared to copper or inert IUDs, but their continuation rates are not comparatively better. A new device Cu-FIX 390 IUD, which is frameless is under clinical testing and is said to reduce bleeding and pain.

From the Indian programme view point, it is not efficacy alone which has to be within the acceptable limits, but it is more important to improve acceptance and the continuation rates of IUDs, which is said to be around 30 percent at 12 months. More stress is required on counselling and health education backed up by good quality services by properly trained manpower, to improve the acceptability and continuation rates of IUDs in the national programme.



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## Safer Oral Pills

The global trend is to improve steroidal oral pills to reduce progressively the active ingredients specially the estrogenic component and develop newer progestins, in the combined formulations. This is mainly because of the major concern in the developed countries for cardiovascular complications related to the changes in high density lipoprotein (HDL) cholesterol levels due to prolonged OC use and consequent alterations in the ratio of HDL Cholesterol to low density lipoprotein (LDL) cholesterol.

The increased cardiovascular risks reported in the western women are related to more than 5 years of regular use of OCs and those who smoke. In addition to smoking, other factors such as hypertension, obesity, diabetes, and high cholesterol levels have also been implicated. Different life styles including psychological stress and alcohol consumption are also important factors in this regard. Due to conflicting results of various studies, the controversy about the association of OC use with cervical and breast cancers has not yet been resolved. However, it is clear that the beneficial efforts of OC use (i.e. prevention of unwanted pregnancy, reduction of benign breast tumors, protection against ovarian and endometrial cancers etc) far outweigh the adverse effects.

The main issue in India, at present, is to popularize the use of the low dose combined OCs in the national programme, as their acceptability and continuation rates are extremely low. For this purpose, it is essential to re-vamp the existing social marketing and community based distribution of OCs.

### Hormonal Contraceptives Delivered Through Newer Drug Delivery Systems :

**Long-acting injectables :** Two long acting injectables Depomedroxyprogesterone Acetate (DMPA) and Norethisterone Oenanthate (NET OEN) are currently used widely and their contraceptive efficacy after a single intramuscular injection lasts for a period of 2-3 months. Both these preparations provide good contraceptive protections but the bleeding irregularities, their major side effects are the reasons for discontinuations. To reduce bleeding irregularities, monthly injections have been developed where lower amounts of progestins (MPA or NET OEN) are combined with natural estrogens so that withdrawal bleeding occurs at regular intervals. The available clinical data indicate lower incidence of bleeding irregularities with such formulations. The other researches ongoing in this area include the synthesis of newer progestins as well as to micro-encapsulate the contraceptive steroids.

The main use in India is to make these injectable preparations available at those centres, which have adequately trained medical and paramedical manpower available to provide suitable counselling, physical examinations and other back up services. The Supreme Court still has to decide about the petition of Women's activists against the use of NETOEN in the national programme.

### Subdermal implants :

Population Council had developed the non-biodegradable implant Norplant which consists of six capsule. When inserted subdermally, Norplant release 50 mcg per day of levonorgestrel to provide excellent contraceptive protections for at least 5 years, in women having body weight of less than 70 kg. Another version of Norplant, Norplant-2 is under development where two rods release the same amount of levonorgestrel for five years, making it easier to insert and remove them as compared to six capsules. Both Norplant and Norplant -2 are clinically similar, providing good contraceptive protection but the menstrual irregularities are major reasons for their discontinuation. The continuation rates of Norplant are slightly better as compared to copper IUDs. Several biodegradable implants such as Capronor - a single implant - are also under development and clinical testing.

The main issue, at present in India is to introduce the Norplant in the national programme in a careful manner by initiating pre-programme introductory studies at the medical college level only in the first phase under medical supervision, backed up by trained para-medicals for counselling and follow-up.



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### **Vaginal Rings :**

These contraceptive vaginal rings are made up of silastic tubing loaded with pharmacological agents (e.g. contraceptive steroids or spermicidal) which can be released at predetermined rate. The ring developed by the WHO releases levonorgestrel for 90 days at near zero order release rate and is likely to be made available for programme introductory studies by early 1993, as it provides adequate contraceptive protection with reasonably acceptable bleeding pattern. The Population Council, New York is also working on a variety of vaginal rings containing combined progestin and estrogen preparations. The WHO and Population Council are also working on vaginal rings releasing natural progesterone.

The main issue in India is to conduct Introductory Studies to find out the rates of expulsion of these rings due to squatting toilet habits as well as to test its socio-cultural acceptability, since it requires genital manipulations by the user to insert or remove the device.

### **Menstrual Inducing Agents :**

The available data indicates that the antiprogestone receptor drug RU486 when combined with administration of prostaglandin on day 4 can effectively terminate the pregnancy in more than 95 percent of women within their missed period of 14 days. Research is ongoing to find out more effective antiprogestone/anti-estrogen receptor blockers as well as suitable drug delivery systems for giving prostaglandins simultaneously on day 1.

The major issue for India is to make RU 486 and prostaglandin drugs available for Phase III and Introductory Studies at an early date.

### **Improved Barrier Contraceptives :**

The quality of condoms has improved significantly in recent years. The main issue is to popularize their use by better social marketing and community based distribution techniques. This assumes more importance for preventing sexually transmitted diseases including AIDs.

Most spermicidal currently available contain Nonoxynol 9 mainly or with TA-88. In India research is actively ongoing on plant products such as Consap Cream (Saponin) or Neem oil based spermicidal. They are in early stages of clinical trials.

## **CONTRACEPTIVE TECHNOLOGIES LIKELY TO BE AVAILABLE AFTER MID 1990S**

### **Contraceptive Vaccines :**

The HCG based vaccine work in India is in Phase II clinical trial. The available data indicate that the antibody titres in women of more than 50 ng/ml provide contraceptive protection. The male vaccine based on raising antibodies against follicle stimulating hormone (FSH) has been developed in India and the Phase I clinical trial is in the process being initiated. The other approaches still at laboratory stages are developing antibodies against sperm specific antigens, zona-pellucida and leutinizing hormone releasing hormone (LHRH).

The major issues facing the immunological approaches to contraception are ensuring effective and sustained antibody titres in every women and prediction for need for booster injections and/or sustained drug delivery systems releasing the antigens in pre-determined amounts at pre-determined intervals.

### **Male Contraceptives :**

Combining different progestins and androgens did not result in consistent azoospermia in 14 different clinical trials. Furthermore, the side effects included reduced libido, acne, gynaecomastia, weight gain and unpredictable return of fertility. Due to toxicity, several compounds including Gossypol have more or less been abandoned.



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Recently, a variety of gonadal peptides have been synthesized in India and elsewhere, which may suppress the biological activity of FSH. They are still in the stages of animal testing.

#### **Reversible Male or Female Sterilization :**

Work is ongoing on a variety of devices-wires, plugs and clips. Most interesting development is the use of polyurethane plug in china and a biodegradable polymer (styrene Maleic Anhydride) in India which can temporarily block the passage of sperms through vas deferens. They are under going clinical trial at present.

#### **Gonadotropic Releasing Hormone (GnRH) Analogues for Female and Male Contraception :**

Both antagonist and agonist analogues have been prepared and route of administration have been either intranasal or subcutaneous, although sublingual/intravaginal routes have also been recommended. One of the concerns expressed is the unopposed estrogen action of GnRH analogues as male contraceptive is under study.

#### **Hormonal Contraceptives for use during Lactation :**

The research is ongoing to either find a suitable steroid which does not get absorbed by the infant's gut from the breast milk during suckling or to deliver natural hormones such as progesterone (through implants/vaginal rings) or LHRH analogues (intranasally) to breast feeding women. These approaches are in early clinical testing.

#### **Improved Methods for Ovulation Detection for use with Periodic Abstinence :**

Rise in LH levels in body fluids is a good index of ovulation and several do-it-yourself kits are now available in market. However, research is ongoing to predict the occurrence of ovulation at least 2-3 days earlier such as an electronic thermometer which can detect rising body temperature. It is too early to predict the successful practical outcome of these approaches.

#### **Plant Products :**

Although various claims have been made about a variety of female and male methods of contraception and abortifacients from Indigenous Systems of Medicines, however, neither in India or elsewhere their clinical efficacy has been firmly established by modern scientific methods.

### **NEED AND DIRECTION FOR RESEARCH & DEVELOPMENT FOR CONTRACEPTIVE TECHNIQUES**

In India, besides the Indian Council of Medical Research which is the apex body for supporting, coordinating and conducting research in family planning, there are several agencies, reproductive biology/contraception research. The recent decision of the Ministry of Health & Family Welfare to establish a National Committee for Research in Human Reproduction is a welcome step to coordinate these inter-agency efforts in a meaningful manner for harnessing the national intellectual and financial resources. This Committee would identify priority areas of research where complementary efforts are required by different agencies and scientists for target and time bound programmes. The ICMR would be the lead agency to provide technical secretariat support to the Deptt. of Family Welfare in these efforts. Furthermore, in order to be self-reliant for contraceptive production and marketing by pharmaceutical industries, the Committee would also develop mechanisms for involving them in early R & D efforts identify impediments and also disseminate the information in these areas to different agencies and lay public.

While major emphasis in research would be to promote the use of available and new contraceptive technologies for birth spacing by conducting operational/sociological/clinical researches, basic research in a few selected areas would be identified for concentrated efforts at an accelerated pace. Some of these possible areas are immunological approaches to contraception, male reproduction, non-surgical methods for pregnancy termination and long acting methods for fertility regulation (e.g. single biodegradable implant).



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While the ICMR has an excellent network of Human Reproduction Research Centres (HRRCs) for operational/introductory/Clinical studies, the facilities in the country for pre-clinical toxicity studies would need to be strengthened. Furthermore, facilities for synthesis of novel peptides and steroids including those which require the tools of modern biology such as RNA/DNA Recombinant Technologies and Genetic Engineering would need to be firmly established. The involvement of polymer-chemists and bioengineers for developing newer drug systems and devices would need to be actively pursued.

Lastly but not the least, the involvement of social behavioral scientists and women health advocates to make the family planning a truly people's movement would be essential. Integrating the family planning efforts with good quality of family welfare services with improved MCH and reproductive health care, at the subcentre level and urban slums, would go a long way in achieving the national goal of population stabilization.

The Task Force Approach which has been successfully utilized by the ICMR in the past as well as by other Govt. Departments (e.g. Deptt. of Biotechnology) would need to be energized for these efforts by providing them with necessary administrative and financial support. The international cooperation in key selected areas would need to be encouraged and streamlined.

## **OPERATIONAL RESEARCH FOR DEVELOPING STRATEGIES AT MICRO AND MACRO LEVEL FOR POPULATION CONTROL**

The objective of reaching replacement fertility by the turn of the next century can only be realized if female education levels are improved rapidly, sterilization services are provided to those who want to limit their family size and a variety of spacing methods are promoted more vigorously. Sterilization and spacing methods are complementary. The barrier to use spacing methods are lack of knowledge, poor accessibility, dislike for spacing methods due to side effects and weak motivation to space children beyond current levels.

Some of the priority areas of operation research are -

### **Strengthening of Programme Operations :**

There is heavy emphasis in the programme on sterilization to the detriment of spacing methods, as the overall performance is assessed in terms of equivalent sterilization. Thus, a worker would rather concentrate on one sterilization rather than three IUD users, or 9 pill users or 18 condom users, since in any case, the credit they get is the same. Furthermore, in view of target setting, the spacing methods get de-emphasized and quality of care also gets adversely affected.

Thus, research is necessary to develop an approach where emphasis would be to judge the performance of the programme and worker by establishing equivalence among different methods (terminal and spacing) for their demographic impact as indicated by both their initial acceptability and continuation rates. This type of research would result in a "bottoms-up planning" by allowing realistic target setting based on existing and desired coverage level of services and allowing matching of actions by workers and supervisors to overcome the constraints. This would also require the re-orientation training of health workers in quality of care.

### **Improving Accessibility in Rural Areas and Urban Slums :**

Research studies which would improve the community based distribution of condoms and pills by village stockists, depot holders, private doctors and indigenous practitioners, would need to be undertaken to demonstrate their usefulness. These research efforts could also involve NGOs in the local areas.

One major area of research is to strengthen the linkages of PHC system with ICDS system in rural areas, for improving the rural accessibility of spacing methods.



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## **Integrating Family Planning with MCH Care :**

The global evidence indicates that improvement in MCH Care is a pre-requisite for a successful family planning programme. Thus, research studies (some of which have been initiated by the HRRCs of ICMR) would help to establish a community outreach system for pre-natal care, nutrition advice and pregnancy risk screening including referral system, rather than only giving tetanus immunization and iron-folic acid tablets. This approach when combined with provision of spacing methods, would result in a Comprehensive Reproductive Health Care Package, for improving family planning programme. This type of research would need to be conducted in the different parts of the country in order to respond to demographic and socio-cultural diversity in the country, whose results may help to develop area and region specific strategies.

## **Introducing New Contraceptive Technologies :**

In order to achieve high contraceptive prevalence for population stabilization and improving reproductive health, there is a need to make available, a variety of spacing technologies, in the "cafeteria approach" of the programme.

Pre-Programme Introductory Studies of proven new technologies such as implants, injectables and vaginal rings are essential to work out their logistical requirements and back up support system for their successful utilization in the programme. It is important to evolve a national consensus on the new technologies in view of reservations and concerns expressed by certain groups about their usefulness.

Studies on Information, Education and Communication (IEC)

Various studies which would strengthen the I.E.C. component of family planning programme need to be initiated. They include reproductive health education for adolescents, pre-marital education and counselling, women's perspectives for spacing methods, motivation and counselling techniques for different types of spacing methods and MCH care.

## **CONCLUDING REMARKS**

The challenge of 90s is to offer quality programmes on a quantitatively unprecedented scale. We must have a flexibility in the approach for our country which is full of diversities since, it is unlikely that we would have a single "Mantra" for stabilizing the population in our country. Improving the women's and children's health and socio-economic status along with their literacy would be essential, along with the delivery of good quality of family welfare services which must offer a significantly better quality of MCH care along with a wider range of contraceptive technologies, than what is being done at present.

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# STRATEGIES FOR PROMOTION OF CHILD SPACING

## NATIONAL INSTITUTE OF HEALTH & FAMILY WELFARE

### NEW DELHI

#### 1) Providers knowledge, skill and attitude

- \* Orientation of staff
- \* Continued use of spacing methods
- \* Training strategy
  - a) preparation of booklets about the spacing methods, their advantages and disadvantages.
  - b) 5-7 days orientation course for Medical Officer and 3 days for BEEs at district level.  
Curriculum may be prepared by Govt. of India.
  - c) 3 days orientation training for all the PHC staffs and village level functionaries by MO's and BEEs.
  - d) Expert committee should prepare the details of the training courses etc.
  - e) Importance to the component of family planning.
  - f) Pre-placement training to the Medical Officers regarding NRR - 1 and practical training in specific spacing methods and surgical procedures.

#### 2. Fixa ion of Targets and Evaluation

##### Distribution of Target

- \* major focus for eligible couples below 25 years.
- \* couples with one child should be the main target for promoting oral pills.
- \* more importance for IUD insertions.
- \* emphasis may be on spacing contraceptives where couples are reluctant to adopt terminal methods.
- \* target should be distributed judiciously between terminal methods and spacing methods i.e. IUD.

##### Updating of Eligible couple register

- \* updating every year.

##### Basic of Evaluation of family planning achievement

- \* discontinuation of award to state on the basis of achievement of targets for one year.
- \* award should be on the basis continued good ???

##### Maintenance of Records and follow up

- \* implementation at PHC and sub-centre for proper maintenance of records for atleast IUD and oral pill users and their follow up done.
- \* checking of the records fortnightly by Medical Officer in-charge.

#### 3. Strengthening the Service Agency

##### Filling up of vacant posts

- \* need to fill all the vacant posts at District and Block levels otherwise services will remain, below the optimum and planned level.
- \* 22.2% MPW, 20.5% LHV, Health supervisors and 14% of ANM were vacant in the sample districts/PHCs a study by the Planning Commission.



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### **MTP facilities**

- \* infrastructure should be strengthened to provide MTP services as a back up support for spacing methods.

### **4. Information, Education and Communication with the Community Observation according to the report of Planning Commission**

- \* The number of eligible couples adopting family planning was not contingent upon the duration of their awareness.
- \* time lag from 2-8 years or more between awareness and adoption of family planning in about 76% of the adoptors is the same.
- \* Creating awareness about family planning spouse, relative and friend and mass media are quite effective than the family planning staff and motivators.
- \* non-adoption of family planning methods was due to other reasons not for want of knowledge.
- \* non-adoption of family planning is due to hear-say and exclusive emphasis on terminal methods.

### **Knowledge of Community about different spacing methods**

- \* for provision of knowledge and educating community about spacing methods, TV/Video, Cinema halls should be used.
- \* individual contacts should be made with the target groups to remove their doubts and fears for adopting spacing methods.

### **5. Population Education**

- \* Population/family life education should be imparted to all children in the age group 11-15 years and above.

### **6. Logistics and Supply of Spacing Contraceptives**

- \* sub-centres/HCs/Sub-District/District hospitals should keep a stock atleast one month all the time to meet shortages.
- \* to ensure regular supplies of contraceptives in the states, assistance of NIHFW could be taken.

### **Special Marketing of Contraceptives**

- \* for regular supply of CC and oral pills in rural areas, this scheme need to be introduced.

### **7. Community based Distribution System (CBD)**

#### **CBD the non-clinical strategy**

- \* community based distribution system (CBD) as a non-clinical strategy may be used for delivery of family planning services particularly the spacing methods through different extension workers.

Leaders, shopkeepers, practitioners etc. as distributors.

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## IEC Approach through CBD for Educating and Motivating Young Couples

- \* IEC approach through CBD needs intensification.

### CBD to increase the demand and satisfy demand for family planning services

- \* will create constant communication/dialogue with those participating in the programme.
- \* will help in promotion of the spacing methods in the family planning programme.

### Woman volunteers to act as CBD

- \* require training of women volunteers to act as CBD.

### Training for Community Based Distributors

Needs some basic information regarding family planning programme :

- i. Orientation of Workers/Distributors about the nature of programme, methods, its advantages/disadvantages etc.
- ii. Screening of potential acceptors to ascertain suitability of method selected. CB distributor should be given and oriented with a checklist of questions to elicit certain information.
- iii. Importance of spacing methods.
- iv. Risk/benefit of pregnancy contraceptive.
- v. Detection of side effects of a method and advise for alternative method.
- vi. The nature and location of back up/referral services.

### Logistics of Distribution

CBD chain be supplied with spacing methods by demand/imprest system

- \* Selection of the distribution system depends on the local situation.

## 8. Incentives

### More Incentives for Sterilisation

#### Present incentives

Sterilisation	IUD
100	9

- \* motivator gets Rs.30/- and Rs.15/- in case of sterilisation of male and female and not for IUD/loop.
- \* in actual much incentives are provided for acceptors of sterilisation by non-governmental agencies.

### Bonus Incentive for continued users of spacing methods

- \* bonus incentive could be introduced for the continued use of particular method which may be evaluated.



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## 9. Community Participation

### Importance of People's Voluntary Participation in the programme

- \* a very little headway in the family planning programme through the present bureaucratically organised system.
- \* needs stress on the mobilisation of people.

### Debureaucratisation of the programme to make it a people's movement, people's programme

- \* Programme needs strong and sustained political commitment and has to be escalated into a genuine peoples movement.

### Formulation of Popular Committees at State, District, Block and Panchayat Levels

- \* To achieve the involvement of people.
- \* Committees should have Govt. officials, influential opinion leaders, satisfied users etc.

### Higher Level Committees to Plan, Supervise, Monitor and Evaluate Programme

- \* To evaluate programme in relation to spacing methods.

### Lower Level Committees to Inform, Motivate couples

- \* To motivate couples for adoption and continued use of spacing methods.
- \* Special attention to non-adoptors and discontinuers of spacing methods.
- \* To help couples in removing their misconceptions, rumours etc.

### Involvement of Women's and Youth Clubs

- \* Special scheme need to be developed for promotion of spacing methods.

### Involvement of Elected Representatives of the People

- \* To create favourable attitude regarding family planning programme.

### Family Planning Mobilisation Programme through Youth and Mobilise Cadres of Elected Parties

- \* To undertake family planning educational and motivational programme.
- \* To encourage people for small family norm.

## 10. Role of Voluntary/non-governmental organisations

- a) At villlge/Block/District level Family Welfare Committee should be set up on all local bodies wherever they are non-existent with representation of women, youth, formal and informal leaders, teachers etc. for (1) mobilising public opinion on age at marriage, small family norm and promotion of spacing methods.

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- b) Utilisation of students members of National Service Scheme (NSS) for promotion of spacing methods in rural areas. The members of NSS need orientation in this respect.
  - c) The voluntary body organisations such as Lions clubs, Bharat Sewak Samaj etc. may be encouraged to incorporate the promotion of spacing methods of contraceptives and small family norm in their activities.
  - d) Voluntary and Social Welfare Organisations including self-employed groups of workers, after proper orientation could be entrusted for the distribution of contraceptives and spreading the messages of small family norm.

**For Orientation and Involvement of these Organisations a Joint Consultative Group may be formed**

- e) The component of family welfare to be integrated in the various training programmes may contain the following items.  
(i) Population Dynamics, (ii) Physiology of Reproduction, (iii) Spacing methods, (iv) Source of supply of spacing methods, (v) follow up of the acceptors, (vi) Record keeping etc.
- f) The key person Secretary of Cooperatives may be oriented to educate their fellow workers to adopt suitable method of birth control. They could also be made depot holders for supply of contraceptives.

## **11. Involvement of Private Medical Practitioners and Professional Bodies**

### **Private Medical Practitioner**

- \* need to orient private medical practitioners for promotion of spacing method of contraceptives distribution of oral pills and condoms and motivate people to accept IUD.

### **Professional Bodies**

- \* Indian Medical Association etc. may be requested to disseminate information regarding spacing methods and their importance literature should be provided in this respect.

## **12. Involvement of Staff of various Development Agencies**

### **Inter-sectoral co-ordination**

- \* need to co-ordinate Family planning programme with other developmental agencies/programme at district and block levels. The staff of these agencies may be oriented for promotion of spacing methods.

### **Role of Different Level of Workers with other sectors**

#### **Role of District Collector (DC)**

- \* need to involve District Collector in the implementation of different approaches and strategies for promotion of spacing methods.

#### **Leadership with Innovative**

- \* Can utilise his knowledge, authority for any innovative strategy.



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### **Programme Monitoring**

- \* Can also review and monitor the programme through meetings with district and block officials involved in the programme.

### **Instituting a System of Review and Recognition**

- \* Can evolve suitable innovative methods for rewards and recognitions to workers whose performance is good.

### **Inter-sectoral Coordination through District Collector**

- \* Other (non-health) govt. departments and agencies can be made use of to promote spacing methods directly or indirectly.

### **Role of Block Development Officer**

Close and frequent official contact essential for BDO and MO (PHC)

- \* To popularise the spacing methods

### **Cooperation between the two must start from the planning stage**

- \* can know the expeditions from BDO and his agencies about promotion of spacing methods, education and motivation work.

### **BDO Can organise and give direction to local Home visiting squads in each Panchayat**

- \* During special drives BDO can help in campaign of the message as well as in organising camps particularly for IUD/Copper-T.

### **BDO to involve Panchayat Raj Instructions of other Local Organisations for Spacing Methods.**

- \* for promotion of spacing methods.

**BDO's team of workers can help in ensuring follow up and referral of cases**

- \* This can help the people for continued use of the method.

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**DISTRICT LEVEL APPROACH TO FAMILY WELFARE  
PROGRAMME IN INDIA.**

**A PROPOSAL FOR EFFECTIVE ACTION.**

**DR. DEVENDRA KOTHARI**  
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# DISTRICT LEVEL APPROACH TO FAMILY WELFARE PROGRAMME IN INDIA : A PROPOSAL FOR EFFECTIVE ACTION

By  
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## Background

The Indian Family Welfare Programme is a centrally sponsored scheme, implemented by the State Governments within the framework of elaborate guidelines or norms developed by the Central Government. Although each State is encouraged to introduce innovative approaches within these policy parameters, in practice the family welfare programme in the country has been macro in approach, sectoral in coverage and highly centralised and has therefore, failed to achieve desired results. The strategy adopted so far has created a wide gap between providers and clients and thus the lack of involvement of people has led to the failure of the programme. Thus, there is growing concern among the policy makers as well as implementors of the programme that the centralised, standardised nature of the scheme gives local programme managers insufficient flexibility to meet varying local needs. There is also increasing awareness that variation within states in terms of language, social and religious groupings, distances within settlement, access to services and health and nutrition status is as significant as variation between states, given to the continental nature of the country. There is now a consensus that the family welfare programme should as far as possible be tailored to meet the needs of individual district, and therefore district should be seen as the basic unit of the management of the programme. As a first step in this direction the Government of India has identified 90 districts of the country where Crude Birth Rate is above 39 births per thousand population on the basis of the 1981 Census and out of this, 83 districts are in the four northern states of India which constitute about 40 percent of the total population of the country (Maps 1 and 2).

For these districts, the Government of India intends to adopt a district-based management system, which will allow local managers to play important role in order to achieve demographic goals at the earliest. For this purpose, the Central Government has outlined the processes to be followed to achieve the goals which mainly emphasize on "strengthening infrastructure and to improve training of the staff."<sup>(1)</sup>

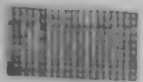
However, it should be noted that improving infrastructural facilities and enhancing training of staff alone will not allow local managers more flexibility in designing operational strategies to meet the local needs in order to improve the demographic situation unless structural changes are brought about in the programme.<sup>(2)</sup>

The main aim of this paper is to evolve a comprehensive district level approach for the family welfare programme to be implemented effectively. The approach discussed in this paper is mainly based on a study conducted in some districts in the State of Rajasthan.<sup>(3)</sup>

# INDIA

## HIGH FERTILITY DISTRICTS

(BASED ON 1981 CENSUS)



BIRTH RATE 39/1000 POPULATION & ABOVE

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## Family Welfare Programme in India

To control and stabilise the growth of population, the National Family Planning Programme (FPP) was launched in 1952 by the Government of India. Since then it has gone through several stages of adjustment in terms of strategies and approaches. The programme is now being implemented as Family Welfare Programme (FWP) with mother and child health care being its integral part. Resources allocated to the programme may not be sufficient, however, have increased in absolute as well as in real terms overtime.<sup>(4)</sup> A large number of family welfare service centres in form of PHCs, sub-centres, etc. has been established all over the country.<sup>(5)</sup> Further, India is fortunate that there is no strong outcry of opposition to the programme from any sector of the population. There are organisations to support but no organised movement against the programme. In spite of this, the programme has failed in having a desirable impact on the galloping population growth.

It is not that people are averse to the programme. Several studies have shown that a majority of eligible couples want to limit their family size. Various studies support this notion. About five to six million abortions take place in India every year.<sup>(6)</sup> It has been reported that around 25 percent of pregnancies after the third child are unwanted.<sup>(7)</sup> About 13 million currently married women in the four large states of Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan, do not want more children but are not using any form of contraception. If they did, fertility would drop by around 12 percent.<sup>(8)</sup> According couples in a demographically backward state like Rajasthan are keen to practice family planning but have not been able to do so because of certain reasons which mainly include poor quality services and inadequate follow-up.<sup>(9)</sup> A recent study conducted by the Operation Research Group in 1990 reiterated the fact and came to conclusion that around 23 percent of eligible couples are ready to accept family planning services in the State of Rajasthan.<sup>(10)</sup>

All these facts indicate that people want to limit their family size but the programme has not been able to convert their latent interest and desire into effective demand. This may be due to the fact that the programme has not been designed looking to the socio-cultural ethos and needs of the local people.

### Need for Structural Change

There are long term causes underlying the poor performance of family welfare programmes in the country, some of which are **structural in nature**. The family welfare programme is a centralised programme with all major decisions percolating downwards from the top with little or no participation of the people for whom the programme is meant. Therefore, willingness and commitment of people is not harnessed. In addition to this, an area specific approach and marketing strategies have not been adopted, in spite of the fact that in a continental country like ours where wide variations exist in terms of population density, degree of development, socio-economic conditions, topography, expectations of the masses, etc. targets are set and guidelines to achieve these are given by the centre.

Further, the programme has been made the responsibility of the medical department, which is not desirable in the present context which is quite different from the situation when the programme was initiated. Family planning is not so much a clinical or medical problem because a healthy person goes in for family planning and a sick person goes to the hospital. Moreover, health is a universal requirement whereas family planning is age specific. With the same people (doctors) being responsible for both medical and family welfare, the former being more urgent in nature gets priority over the latter. Furthermore, the role of the medical department in the realm of family welfare is likely to be small in future. This is because the popularity of non-terminal methods is increasing and the role of terminal methods (sterilisation) is decreasing. Therefore, motivation of couples assumes special significance, this calls for a constant motivational strategy which would need social physicians trained in the art of motivation rather than clinicians to handle the programme.



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Whenever one talks of population and its control one tends to think of family planning alone. This is so because all the governmental efforts or programmes on population have been woven around family planning. This is not a correct approach. Although fertility is a complex issue and is influenced by various factors like female literacy, female status, son preference, age at marriage, level of child mortality, etc., it does not mean that the programme should include under it all those **beyond family planning aspects** which influence fertility behaviour. Thus, the scope of the programme should be defined carefully and **Family Welfare Programme should be considered as one of the many efforts helping in arresting the galloping population growth.**

All these points suggest that the programme should be restructured and revitalised in a decentralised manner with district as the nodal point for all activities, which should be carried out in a holistic perspective.

### **District Level Approach : Scope and Structure**

In the proposed approach, as noted above, district would be considered the nodal point for all activities pertaining to the family welfare programme. The family welfare programme restructured on the above basis would be one of the many means to tackle the population problem. The revised programme will concentrate on providing **basic MCH-FP services** which include ante-natal, post-natal care, etc. Any risk cases which need clinical attention and persons interested in adopting sterilisation will be referred to medical institutions. However, it would be the responsibility of the programme to make all arrangements in order to ensure quality of services and good follow-up. Thus **clinical services will be arranged through a system of operating contracts which the peripheral units can have with the government and private hospitals, PHCs, etc.**

For achieving this objective, the existing District Family Welfare Bureau (DFWB) would be revived and made responsible to implement the programme. 11 The DFWB will be an autonomous body and will be given the total responsibility for managing all activities in the given district.

The district would further be divided into Tehsil/Taluka Family Welfare Bureaus (TSFWB), these would be headed by family welfare officers. These bureaus will be responsible to look after the needs of lower level units under their jurisdiction. The Tehsil/Taluka would in turn be divided into family welfare blocks, headed by a family welfare promoter. Each family welfare block would cater to a population of 30,000. The family welfare promoter would in turn look after six ANMs each catering to a population of 5000. 12 All these Bureaus would be in line command and directly responsible for implementing the Family Welfare Programme. The **District Population Coordination Board**, would be an organisation, in addition to the above mentioned bureaus, which will involve various units at the district level and bring about a consensus on implementing the FWP at the district level. The support services in form of clinical services will be obtained from the **FW Service Centres**, that is, government and private hospitals and clinics. These units may be called as support structures. Alternatives organisational structure for the proposed approach is diagrammatically presented in Figure 1.

### **Organisational Processes**

The new system would be **Bottom-up** approach and would progress from parts to the whole rather than descend from the top, as is the practice currently.

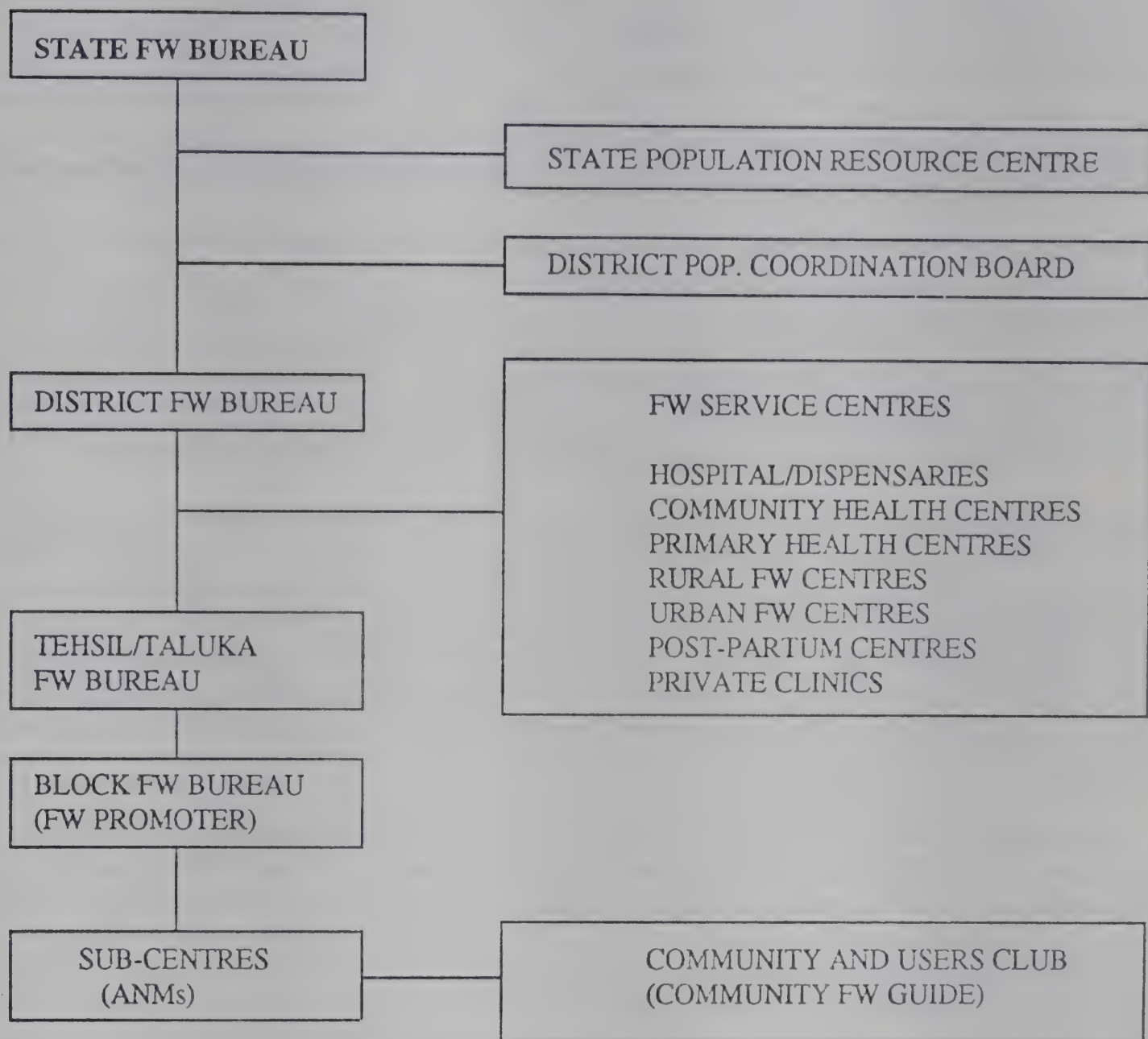
1 **Co-ordinative and supervisory role of State Family Welfare Bureau :** The State Family Welfare Bureau will mainly serve as a liaison agency between the Centre and the State and provide guidance for formulative district family welfare plans. It will also evaluate the performance in the districts under its jurisdiction and suggest suitable remedial measures, if and when required.



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## IMPLEMENTATION OF FAMILY WELFARE PROGRAMME IN AN ALTERNATIVE APPROACH

### A MODEL



———— Line Command      - - - Support Structures

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2. **State Population Resource Centre** -- This will be an autonomous organisation. It will undertake relevant research and consultancy with special relevance to population control and family welfare programme. It will also help the district family welfare bureau to design district demographic plans and help to evaluate the programme, if requested.

3. **District Population Co-ordination Board** -- It is known that fertility is a complex issue and is determined by various factors. Hence, various agencies, units and experts have to be involved in controlling the galloping population growth even at the district level. The main aim of the District Population Co-ordination Board will be to bring various units like education, agriculture, family welfare, medical and health, social welfare, ICDS programme, youth clubs, womens organisations, NGOs, etc. to a common platform to discuss the population problem and bring about a consensus in implementing the family welfare programme in the district. This board will be headed by the District Collector who would be fully involved in coordination of the activities related to the family welfare programme.

4. **District Family Welfare Bureau** -- The District Family Welfare Bureau will be a nodal agency and will formulate area-specific and need-based plans for the district. A long term plan may be drawn up for 5-10 years. In addition to this specific strategy and annual plans can be made within the framework of the long-term plan. The plan would show the kind of demographic scenario the district would have in the future. The DFWB can get the required help from the State Population Resource Centre for designing the demographic plans and based on this, each and every District Family Welfare Bureau will be required to set its own annual work targets. Each DFWB will be divided into Tehsil/Taluka FW Bureaus and these will look after the needs of lower units under their jurisdiction.

5. **Role of Block Family Welfare Bureau and Peripheral Units** -- These levels would be the actual point where the Family Welfare Programme would come into contact with the public. the needs and requirements of the clients be found out and the marketing-mix would be formulated. Any clinical services that are required by the clients will be arranged through a system of operating contracts which the peripheral unit can have with government and private hospitals, clinics, etc. as stated earlier. This will stimulate competition among these agencies and, consequently, help to improve the quality of the services offered to beneficiaries. In the proposed approach, **incentives in cash and kind will be discontinued and these would be supplemented by good quality of service, health insurance and medi-claim facilities for post-operative treatment, if required.**

At the peripheral level, the ANM (Auxiliary Nurse-Midwife) will play an important role both as a motivator and as a provider of basic MCH-FP services like immunisation, IUD, insertion, etc. The ANM will be required to visit each village within her jurisdiction twice a month on fixed dates and at a fixed time. This would help the local masses to avail of her services with ease. Since it will not be possible for an ANM to cater to all the villages within her jurisdiction (5000 population) at the same time, it is suggested that the post of a community family welfare guide (CFWG) be created at every village. The CFWG could be an eligible couple practicing some form of family planning. The CFWG could act as a link between the ANM and the villagers and also help to motivate the villagers to adopt family planning methods. The CFWGs could also act as a depot holders of contraceptives like pills and condoms for which they would be paid a commission. This will help to make the position of CFWG viable as well as it would strengthen the community based distribution system. The performance of CFWG will be evaluated regularly and if found unsatisfactory, another person would be appointed. In case of sterilisation, the person would be referred by the CFWG to an ANM, who would, in turn refer the case to a family welfare promoter. The promoter will be responsible to make all arrangements for the procedure in either a public or private hospital or clinic, including existing CHC, PHC, etc. Similarly, in case of complications, the persons concerned could approach a CFWG who would inform the family welfare promoter or ANM and the latter would be responsible **to arrange for medical help within a stipulated time.** This would help to create the confidence amongst the masses and they would be assured that in case of complications they would be taken care of. This in turn would help to increase the acceptance of family welfare programme and hence convert the latent need for family welfare services (which is quite high) into a felt need thus helping to increase demand for family planning services.



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To facilitate the work of ANMs, it is suggested that the current eligible couple approach should be replaced by the **birth-based approach** as this would greatly help the ANMs to locate and approach clients at ease. In the former approach, the ANM would have to cater to 900 eligible couples (if 18 percent of the total population is assumed to be the eligible couples) and, in the latter to only 175 mothers (if the birth rate is assumed to be 35). This would help to reduce her work load and improve the quality of services provided. It does mean that other couples will not be able to avail the services. It simply means that concentration will be on pregnant women and mothers of one year old child.

## Manpower Requirements

The suggested model proposes to utilise the existing manpower working in the family welfare programme as far as possible. If suitable persons are not available, they would be transferred from other departments on deputation or recruited for the programme.

The DFWB will be headed by a Director who would be carefully selected by a selection committee constituted by the State FW Bureau and given a stable tenure of at least five year. It is, however, not necessary that the Director should be a person with a medical background, an expert in the field of management which would include expertise in marketing, motivation and monitoring could be appointed. The Director will be assisted by three Deputy Directors having expertise in the areas of supply, demand generation and project management including evaluation and monitoring.

## Time Frame

Implementation of the proposed model is an action oriented activity wherein effect of the proposed model would be evaluated on outcome indicators like crude birth rate and not on output indicators like couple protection rate. This would require reasonable time span to see the impact of the model in achieving results, hence, it is proposed that the model should be implemented for a period of four to five years. Out of this the initial six months would be spent on making necessary arrangements for implementing the model. In addition to this a base-line survey would also be conducted to chart-out the profile of the district. A demographic profile of likely achievements in terms of crude birth rate, infant mortality rate, total fertility rate, and maternal mortality rate would also be stated.

## Financial Implications

Implementation of the programme according to the proposed approach would not require additional monetary inputs and existing resources could be utilised to implement the model. Hence, amount for implementing the proposed approach will not exceed the specified budget currently spent for family welfare purposes in a given district. However, in the initial stage some extra expenditure might be incurred, this would however, not exceed beyond 10 to 15 percent of the currently sanctioned budget.

## Expectations from the Government

The paper argues that structural changes are needed in the family welfare programme, if effective results are to be achieved. Successful implementation of the proposed district level model requires some policy decisions on part of the Government. Some of these include :

- i. The District Family Welfare Bureau would be the sole agency to carry-out the family welfare programme in the district. It will **have its own budget**.
- ii. The district Family Welfare Bureau would be declared as an autonomous body (i.e. District Family Welfare Bureau would be given the freedom to carry out the programme based on guidelines they set for themselves within the format of the new model). Therefore, the districts would be **exempted from targets** and other requirements imposed from the top. The district family welfare bureau would however, be required to make five yearly demographic plan for the district and activities of the bureau would be guided by this plan.

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- iii. Job responsibilities of some workers should be redefined, especially those of the paramedical staff who would be working under the DFWB. For example, responsibilities of ANM will be confined to basic MCH-FP services only, as noted above. The sanctioned budget for the Family Welfare Programme to be incurred in that district will be given to the bureaus.
  - iv. There are certain clinical units like the Rural Family Welfare Centres, post-partum centres, etc. being financed by the family planning budget. These would remain with the medical department but would continue to be financed by the existing family welfare budget. However, job responsibilities of personnel working here would be redefined.
  - v. Before adopting the model on a wide scale it would be worthwhile to implement it in a few selected districts on an experimental basis.

## Conclusion

The present population scenario in the country is no doubt grim however, population control is by no means impossible task. Many other countries who started the family planning programme much after India with even worse demographic profiles have achieved considerable success in controlling population, through determination, by undertaking imaginative programme and involvement of the people.

If the threatening growth rate of population is considered a serious problem by the Government of India then it should be tackled in a systematized manner. This calls for structural changes in the family welfare programme so that it can be effectively implemented and easily accepted by the masses. All that is required is a firm and bold decision on part of the government and strong political will to implement in the proposed model. Perestroika has indeed become a part of our daily life. This ensures the survival of the fittest and the fittest are those who readily adopt to the changing situation. It would be in the fitness of things to bring a holistic change in the family welfare programme as outlined above.



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## REFERENCES

1. For details, see "Action Plan for Revamping the Family Welfare Programme in India", Department of Family Welfare, Ministry of Health and Family Welfare, Government of India, New Delhi, 1991.
2. Kothari Devendra and Rameshwar Sharma, "Family Welfare Programme in India : An Alternative Approach", Health Management Vol.5(2), 1991 (Indian Institute of Health Management Research, Jaipur, India).
3. The study sponsored by the Ministry of Health and Family Welfare, Government of India, New Delhi. For details, see Kothari, Devendra, Family Welfare Programme in Rajasthan : Beyond the Existing Approach, Indian Institute of Health Management Research, Jaipur, 1989, pp.ix+243.
4. The resouuces allocated to the Family Welfare Programme (FP and MCH) in the Seventh Plan (1985-90) were Rs.32,860 million this represents an increase of 302 percent over Rs.10,780 million allocated in the Sixth Plan period (1980-85). According to the latest budget the allocation for the Family Welfare Programme has increased by 17 percent from 857 crores in the year 1991-92 to 1000 crores in the year 1992-93.
5. The number of sub-centres, PHCs and Upgraded PHCs/CHC (as on 1.4.89) were 120767, 18811 and 1631 respectively. Source : Year Book 1988-89 : Family Welfare Programme in India, Ministry of Health and Family Welfare, New Delhi.
6. Jacobson, Jodi L., The Global Politics of Abortion, Watchword Institute, Washington, USA, 1990.
7. Kothari, Devendra, Growing Population of Rajasthan : Some Emerging Issues, IIHMR occasional Paper No.1, Indian Institute of Health Management Research, Jaipur, 1990.
8. Satia, J.K. and Jejeebhoy, S.J. (eds.), The Demographic Challenge of the Nineties : An Agenda for the Four Large North Indian States, UNFPA, New Delhi, 1990.
9. Kothari, Devendra, Family Welfare Programme in Rajasthan : Beyond the Existing Approach, Indian Institute of Health Management Research, Jaipur, 1989, pp. 71 - 73.
10. Family Planning Practices in India : Third All India Survey, Operations Research Group, Baroda, 1990.
11. To implement the programme District Family Welfare Bureaus (DFWBs) were created in the late sixties. There are 399 DFWBs and these Bureaus employ various categories of people and their number is 6727 as against the sanctioned positions of 8132 as on 31st March, 1990. Source : Year Book, 1989-90, Family Welfare Programme in India, MOHFW, New Delhi.
12. The number of CFWGs, ANMs and Family Welfare Promoters can be increased looking to the need of the area.

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## The Discussion

1. The participants agreed on the policy and guidelines provided in the documents of Ministry of Health and Family Welfare, Govt. of India, ICMR and NIHFW.
2. Dr. Kothari's presentation and district level approaches to family welfare programmes evoked interesting responses.
  - \* Participants agreed that the district should be the focal point for planning, implementation and monitoring of health and family welfare programmes.
  - \* The structural changes requested in the presentation was discussed in length regarding operational feasibility as well as sustainability. One of the underlying prints was that in India we are developing system on one hand over the years and modifying the developed system through structural changes on the other hand thereby many times we are back in square one. Therefore one should be cautious in introducing structural changes in the existing system within the Government frame work.
  - \* The question of how much decentralise planning could be done at the district level and what type of administrative and financial support the state should provide to the districts was discussed in length. Govt. of Orissa has to decide on these points within their own frame work.
  - \* Participants agreed that service providers need not be the best motivators. There was agreement on the proposal that health promotion and social mobilisation could be carried out by the local village groups and the quality and coverage of services would be provided through the regular health system. This model could be tried out in selected blocks in the districts.



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Thursday

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**TECHNOLOGIES IN CHILD SPACING  
"AN INDIAN EXPERIENCE"**

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# TECHNOLOGIES IN CHILD SPACING: an Indian experience

By  
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India is one of the first countries as a National Programme. Yet during nearly fifty years we have not been able to achieve our goal of bringing down our birth rate to 25/1000. Our eligible couple protection rate is only 37.5% as against 60% of the target. The reasons for not accepting family planning are numerous such as illiteracy, poverty, socioeconomic status, religion, etc. Unless there is a significant improvement in the quality of Maternal Child Health (MCH) and family planning services, we will not achieve success in our programme.

Through educational programme emphasis should be laid on the fact that side effects, complications and maternal mortality rate of any fertility control method is definitely less than complications related to pregnancy termination. Also, participation of the community and involvement of Family physicians will help to improve the acceptance of family planning to a great extent.

In an attempt to develop an ideal contraceptive, research continues and newer technologies are developed. The idea is to offer a Cafeteria approach to the acceptors.

Also, one single contraceptive, though good may not be suitable for 100% of the couples.

This paper presents the development of standard and recent contraceptives.

## STEROID CONTRACEPTIVES :

Pincus in 1955 developed the first oral contraceptive which contained a very large dose of progestogen (10mg/tablet). It was soon realised that the dose was too high and a much smaller dose could successfully prevent the pregnancy.

The dose of Ethinyl Estradiol (E.E) also is reduced in the latest combination pills from 50mcg to 30mcg and this seems to be the optimum dose.

The progestogen used in the combination pills are either L-Norgestrel or Norethisterone. (NET)

To reduce the total amount of hormones ingested in one cycle, Triphasic pills were developed. (Triquilar, Orthonovum 777). These pills mimic the hormonal pattern of normal menstrual cycle. These pills are tolerated well but it was noted that there was no difference in the acceptability between regular o.c's (Mala N or D) - ICMR multicentric study. The metabolic parameters with Triphasic pills and pills containing 30mcg E.E. Recently, much attention has been drawn to the lipid profile and its relation to myocardial infarction and cerebrovascular accidents. This is attributed to the progestogen component of the pill -- 19 Nortestosterone derivatives. Hence in the generation of oral pills the new progestogens called as Desogestrel and Gestodine are introduced. These compounds increase the HDL/LDL ratio and are therefore cardioprotective. Besides the metabolic parameters remain unaltered even after their



long term use. (Marketed in India as Novelon). The long acting depot steroids are developed to obviate the need for sustained motivation, which is necessary for the oral pills. The current attractive modes of the steroid delivery systems are use of :

- |    |                                  |  |         |
|----|----------------------------------|--|---------|
| 1. | Injectables                      | 2monthly<br>3monthly<br>1monthly       |         |
| 2. | Subcutaneous Implants            | - 6 rods Norplant<br>- 2 rods Norplant | 5years. |
|    | Biodegradable Implants           | - Capronar                             | 1year   |
| 3. | Steroid Releasing Vaginal Rings. |  |         |
| 4. | Nasal Spray                      | - NET                                  |         |

Several studies with long acting injectables -- Depot Medroxy Progesterone Acetate (DMPA) and Norethisterone Enanthate (NET / EN) are conducted on multicentric basis by WHO and ICMR. Both DMPA 150 mg 3 monthly and NET/EN 200 mg 2 monthly given as intramuscular injections resulted in disruption of menstrual cycles. The main reasons for dropout at the end of 2 years were bleeding in 12% and amenorrhoea in 8%. Depot preparations are effective in protection from unwanted pregnancy. The continuation rate at the end of 24 months was 30% in ICMR study.

To reduce the bleeding problems associated with only progestogen injectables, several investigators have focused their attention in combining synthetic progestogen with Estrogen in monthly injectable preparation. The progestogen used is either DMPA in a dose of 25 or 50 mg or NET/EN in a dose of 50 mg. Of the three estradiol esters investigated by Oriowo and Associates, E. Valerate seems to have more consistent pharmacokinetic pattern than Estradiol Cypionate or E. Benzoate. ICMR conducted a multicentric study on monthly injectables. The results were very encouraging with normal menstrual pattern in 70% cases. Continuation rate at the end of 6 months was 80%.

**NORPLANT** : is a subdermal silastic implant, contains Levonorgestrel. It provides contraceptive protection for 5 years. The efficacy study of Norplant was conducted and completed by ICMR in 1990. 163 patients completed 5 years and there was no method failure. The continuation rates at 5 years were 41.5%/100 users.

The discontinuation for bleeding was 28.4 / 100 users at the end of 5 years.

The programme introduction study through B & C types, centres was initiated in 1986 and completed in 1990. Total of 1102 women were enrolled and 22111 cycles were observed. The failures were 0.4/100 users, Infection 0.2 and continuation rate was 36 / 100 users at the end of 3 years compared to 72 / 100 users in phase III study.

**S.S. Ratnam** from Singapore has reported very encouraging results with Norplant - continuation rates 60% at 5 years, discontinuation for menstrual problem 12% with no accidental pregnancies.

Metabolic studies indicate that even after prolonged use there was no change in LFT, Serum lipid and Coagulation profile and carbohydrate metabolism. The HDL / LDL ratio did not change, suggestive of no cardiovascular risk.

**Dr. Rabe** also reported no change in lipid profile and HDL / LDL ratio.

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**CAPRONOR** : a biodegradable implant.

As removal of Norplant needs surgical removal, a biodegradable single implant releasing 20mg/cm Levonorgestrel maintains the contraceptive efficacy for 1 year.

42 subjects were enrolled at 3 HRRC.

34 completed 1 year. The reasons for discontinuation were failure in 1 and menstrual irregularities in 4 subjects.

## **STEROID RELEASING VAGINAL RING :**

The vaginal method of administering steroids offers the unique advantage of self administration of the vaginal ring.

Two types of vaginal rings have been developed

- only progestogen
- Combination of E & P

The only progestogen rings consist of 4.66 mg L Norgestrel, & releases 20 Ug / day. The ring is continuously worn for 3 months and then changed. We studied 50 patients at WHO centre. The continuation rate at the end of 1 year was 60%. Discontinuation for bleeding and repeated expulsion was 20% and 12.5% respectively.

The acceptability was satisfactory.

The combination ring has to be taken like oral pills - 3 weeks on and 1 week off. It contains LNG and 17 B Estradiol and the menstrual pattern compares with combination of oral pills. IRR has also reported satisfactory results.

The long term continuation rates of effect on vaginal mucous membrane needs further evaluation.

## **CENTCHROMAN from CDRI - Lucknow :**

A new arrival in the family of oral contraceptive is a weekly pill developed by Indian scientists at CDRI - Lucknow. The pill is called Centchroman.

It is a nonsteroidal antioestrogenic compound.

At Lucknow, over 1000 women were given the drug. The failure rates are 2 - 3 / 100 women.

The menstrual cycles remain regular in 90% and there was no metabolic changes after 36 and 48 months of use.

In the dose finding study, the optimum dose was 30 mg biweekly for 12 weeks and then 30 mg once a week. The drug is marketed now as 'Saheli'.

## **INTRANASAL ADMINISTRATION OF NORETHISTERONE SPRAY FOR FERTILITY CONTROL :**

A pilot study to investigate the effects of intranasal administration of NET Spray on the reproductive function was assessed at Institute For Research in Reproduction, Bombay. The women were treated with NET - 300 Ug, once daily for 2 cycles. The changes were blockade of ovulation, Luteal insufficiency, and hormonal effect on the endometrium which were clearly suggestive of antifertility effects.

Phase II clinical trial on the acceptability and efficacy is being initiated.



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The advantage of this route are bypass effect on Liver metabolism and non exposure to enzymes or secretion of gastrointestinal tract.

## POST COITAL CONTRACEPTION :

Post coital contraception is used as emergency method, when a women is faced with a unprotected coitus, in cases of rape or when there is displacement or bursting of condom or diaphragm.

Morris & Van Wagenen, first reported in 1960 high doses of estrogens as emergency post coital contraceptives. Since then, high doses of estrogen as well as estrogen/progestogens combinations have been employed. Similarly, intrauterine copper devices also have been used.

The mode of action is, changes in the endometrium, making it unsuitable for implantation.

As high doses of hormones are given, in case failure occurs, termination of pregnancy is essential.

## INTRAUTERINE CONTRACEPTIVE DEVICES :

IUCD is the second effective single shot, long lasting method suitable for the developing countries, where discontinuation rates of o.c is very high. Lippes loop, which was widely used in 1965 - 70, soon lost its popularity because of high rate of bleeding, expulsion, accidental pregnancies and perforation. By 1972, Zipper and Tatum made copper T which has proved its superiority by reducing all the side effects associated with Lippes loop. Various models of Copper IUD's eg. Cu7, Multiload Cu250 CuY (Sonawala) have all proved their efficacy and the event rates are similar with minor differences.

The new addition to the intrauterine devices is adding more copper/silver to the IUD - hence increasing the duration of efficacy to 5 years. CuT 380 - A contains 380 mm<sup>2</sup>, CuT and Nova-T has silver incorporated with copper. WHO in 1987 conducted a multicentric clinical trial of 3 copper IUDs TCu220, Nova T, CuT380A. The continuation rates at the end of 3 years were similar with all the IUDs. Accidental pregnancies were higher (4.3) with Nova T than with CuT 380A (2.7).

The use Levonogestrel IUD was discontinued because the higher rates of ectopic pregnancies. Out of 8 ectopic pregnancies in the study period, 6 were with the use of LNG-IUD. Also, the removals for pain and bleeding and expulsion were higher with LNG-IUD.

Both CuT 380 and Nova T may be useful for elderly women around 40 years and not willing for a permanent method of family planning. A pilot research project of CuT insertions by medically trained personnel was compared to those carried out by trained nurses in urban clinics of Bombay by Institute for Research in Reproduction (ICMR). The observations at the end of 12 months did not reveal any significant differences between the 2 groups.

This observations supports the practice of using trained nurses in National family programme for IUD insertions. Recent research is directed towards recognising the problems associated with IUCD use and treatment of these problems to improve the continuation rates.

Three major problems associated are :

1. IUCD and bleeding
2. IUCD and PID
3. IUCD and ectopic pregnancy



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Bleeding associated with IUCD use is a major reason for dropout of this effective method of contraception. Electrone microscopy (carried out by Hohmanetal) made it possible to understand the patho-physiology of bleeding. The factors responsible were :

1. Alteration in endometrial morphology.
2. Alternation in endometrial fibrinolysis.
3. Alteration in endometrial mast cells, and heparin levels.
4. Alteration in platelet uptake and turnover.
5. Increase in the level of endometrial prostaglandins.

Depending on the pathophysiology, various drugs are used to reduce the bleeding. Amongst the various drugs such as antifibrinolytic agents, antihistaminics, routine drugs like RCK for blood coagulation, prostaglandin synthetase inhibitors are found to be most useful in reducing the blood loss. Mefenomicacid administered in a dose of 500 mg. twice daily for five days during the menstrual period significantly reduces the mean menstrual blood loss as well as pain. We have used Naproxen, Ponstan, Elagesic Forte, Dysmen and Tromanil and all have proved to be effective.

IUCD and PID Several investigators eg. Ory and associates, Vassey et all, Westrom et all and in Bankok Hospital group have carried out studies to assess whether IUCD was associated with higher risk of PID, than non users. This may be biased, as patients using IUCD are followed up repeatedly and also report the trivial symptoms.

We carried out clinicobacteriological study and did not find any significant correlation. I feel that PID is not a great problem for us. The risk is more for women with STD's, multiple sexual partners, frequent sexual partners in Western Countries. However patients with symptoms must be evaluated, investigated and treated carefully and promptly.

## **IUCD & ECTOPIC PREGNANCY :**

There is no doubt that a woman who becomes pregnant on IUCD is certainly at more risk of developing an ectopic pregnancy, than a woman not using IUCD. Lehfeldt reported 4.3% ectopic in IUCD wearers against 0.7% non IUD users. 0.2% in controls. The findings suggest that a possibility of ectopic pregnancy should be kept in the mind whenever a patient with IUCD in situ becomes pregnant. No relation was found with previous IUCD use or duration of use. ICMR conducted a multicentric epidemiological study of ectopic pregnancy. They did not any higher risk of ectopic pregnancy with contraceptive use.

## **CONVENTIONAL CONTRACEPTIVES :**

Condoms is the only popular method for males, and is used quite widely. Modifications in the condom quality, lubrication and attractive colours might improve the use of condom. It may be suitable for couples, who do not wish to undergo any intrauterine manipulation for IUCD and do not like bodily changes with oral contraceptive. Because of the irregular use, the failures are about 15/1000 users. The most important use of condoms is prevention of STD, AIDS etc.

"TODAY" vaginal pessaries containing spermicidal agent-g-nonoxynyl are available in a pack of 5 tablets in the market. The efficiency of the tablet was tested in the hospitals of Bombay. A negative PCT after the use of today was considered as successful. Today is suitable for couples who want to postpone their pregnancy temporarily. The exact number cannot be predicted. Today as a contraceptive sponge is also available, abroad in which a sponge is incorporated with the spermicide. Hence it acts as a mechanical as well as chemical agent. One sponge can be washed and reused for 10 times. Very few personal studies are carried out in India. The problem is removal of the sponge which requires vaginal manipulation.

Diaphragm and cervical caps are almost outdated, because of manufacturing problems.



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## NATURAL METHODS OF FERTILITY REGULATION :

Natural methods are those, by which pregnancy can be prevented by timing of the sexual intercourse in relation to the menstrual cycle and fertile period.

### BILLING'S METHOD :

The first impartial assessment of cervical mucus was undertaken by WHO in 1985 in five countries.

Field trial with Billing's ovulation method for eligible couples who do not practise family planning were undertaken by ICMR in 5 states U.P. Bihar, Rajasthan, Karnataka, Pondicherry.

Of 2081 volunteers with normal menstrual cycles 83.4% continued the method at 12 months, 55% continued at 24 months.

The method related failure rate was 1% at 12 months and 2% at 24 months. A total of 869 subjects participated in the study to detect the cervical mucus method. 5% were faced with an unplanned pregnancy.

Out of 725 subjects who learned the method and entered 1 year study, the pregnancy rate was 22.5/100 users.

This proves the low use-effectiveness of the method. It is difficult to popularise this method for the masses.

### BREAST FEEDING :

In recent years there is tremendous importance given to breast feeding as a method of delaying ovulation. The clinical records of 236 nursing women who relied on lactational infertility and 440 women who received IUD within first two post partum months were included in a study by Diaz et al (1988).

1. 49% of the mothers who were on exclusive breast feeding had amenorrhoea compared to 19% who started supplemented feed.
2. Six feeds during the day and two at night delayed the 1st menses for 6 months in 50% of the women.
3. 50% of the ovulation in the 1st six months preceded the 1st menses and hence pregnancy can occur during lactational amenorrhoea.
4. Cumulative pregnancy rate at 6 months post partum was 25% in mothers who had their first menses, but only 2% to those who were still amenorrhoeic. The overall pregnancy rate was 9.4% at the end of 6 months.

Though breast feeding is excellent for mother and child both, it cannot be relied upon entirely as a 'Natural Birth Spacer'.

### ANTI-IMPLANTATION AGENTS :

Though medical termination of pregnancy should not be considered as a family planning method, MTP often motivates the women to accept a family planning method. A safe, effective and quick method of abortion is therefore essential.

Menstrual regulation for early pregnancy termination is a safe, effective and quick method of abortion. But it requires trained personnel and well equipped operation theatre facilities. Considering the facilities and trained people available in our country, medical method of termination seems to be an attractive alternative to suction evacuation.



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In 1970's prostaglandins in the form of injections, suppositories were investigated on multinational multicentric basis by WHO, ICMR. These drugs were effective in terminating pregnancy in about 95% but associated with the unacceptable side effects of gastrointestinal systems.

Discovery of RU 486 (Mifepristone) - an anti progestational agent by a French scientist has created lot of curiosity, concern and some criticism not only in the medical field but also paramedical and social field. The drug is marketed in France and freely available in France and China.

RU 486 - available in the tablet form of 200 mg. each, acts at the level of prog. receptors situated in endometrium and blocks the receptors. Since the maintainance of early pregnancy is critically dependent upon availability of progesterone, the implantation can be easily disrupted by withdrawal of the hormone. This can be obtained either by blocking the receptors or inhibiting the synthesis. RU 486 acts at the level of receptor and converts the refractory uterus of pregnancy to a reactive organ. The products of conception are detached from the uterus. The drug has no capacity of myometrial contractibility and hence the expulsion of the detached products is hampered. From many original studies the success rate of only RU 486 is only 60-65% which is not acceptable.

A small dose of prostaglandin or its analogues either in the form of injection or suppositories boosts the success to 95% which is comparable with vacuum aspiration. The combination treatment offers the unique advantage of improving the success of RU 486 and reducing the side effects of prostaglandin.

The activity of the uterus with RU 486 and the synergistic action of PG was demonstrated by Bygdeman et al by intrauterine pressure recordings. Compared to intreated controls, patients treated with RU 486 showed increased uterine contractibility.

Administration of 0.25 mg sulprostone, caused a rapid increase in the uterine tone as well as frequency and amplitude of contraction resulting in complete abortion.

The multicentric ICMR study was completed '89-90'.

Three different treatment schedules were studied :

RU 486 - 600 mg alone - single dose

RU 486 - 400 mg + 2.5 or 5 mg methylene oral PG E<sub>2</sub> tablet

RU 486 - 50 mg daily x 3 days + 5 mg. 9 methylene PGE<sub>2</sub> tablet

A total of 100 subjects were enrolled. The results were evaluated, showed the success Rate of all the treatment schedules varied from 65 - 75%. There were 50 serious side effects.

Following this, RU 486 in dose of 200 to 600 mg was combined with either 3 or 5 mg. of methylene PGE<sub>2</sub> gel after 48 hours at 8 centres in the country. Women with menstrual delay of 7 to 28 days (Amenorrhoea upto 56 days) were enrolled for the study.

The success of RU 486 - 200 mg + 5 mg. gel is 93%, with 3 mg. gel was - 85% and that of RU 486 600 mg. + 5 mg. gel was 72%. From out of the personal experience also, the success of RU 486 200 mg. + 5 mg. vag. gel is 95%. This indicates that increasing the dose of RU 486 to 600 mg. is not essential, as 200 mg. dose is equally effective. As methylene PGE<sub>2</sub> gel is manufactured in India now, these results are of great interest. The most distressing side effect of RU 486 is prolonged duration of bleeding for 10-12 days, as against 3 days bleeding in vacuum aspiration. But since the treatment is non surgical, Indian women seem to prefer it, inspite of the prolonged bleeding. When both the methods were offered to the patients, explaining all the advantages and disadvantages of both the methods, 90% women opted for the tablets, indicating its high acceptability. Fear of surgical method and bodily injury seems to play an important factor.



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RU 486 seems to have a good future, if the patient selection is proper and patient are under the supervision of a gynaecologist. Self administration and availability of the drug across the counter at this stage of development may prove dangerous, as the drug will be misused by the patients.

## VACCINES FOR FERTILITY CONTROL :

The feasibility of immunization with Anti hCG for fertility regulation was first reported by Talwar and Associates in 60's.

The first vaccine beta-hCG-TT after completion of preclinical and toxicological studies underwent phase I clinical human trials in 6 centres. The vaccine was tried at one dose level. 61 out of 63 women raised the antibodies against hCG with a duration of 300-500 days in good responders. There was variability of response from individual to individual and those women with low titres were not protected from pregnancy. Hence it was felt necessary to develop vaccine which would induce higher antibody response and minimise individual variation.

Their new formulations were evaluated by N.I.I. at two dose levels 100 mcg & 500 mcg. at 6 centres in India.

### Antigen

- 1) Alpha - oLH-Beta-hCG
- 2) Beta - hCG-TT
- 3) Beta - oLH & Beta-hCG mixture.

Carrier : Tetanus toxide and cholera toxin chain B (CHB)

Adjuvant : SPLPS + Alum - for 1st Injection  
Alum-Further injection.

Primary immunization was done with 3 injections - once a month and Booster at 24-32 wks.

The results are encouraging. All the three types of vaccines were able to generate the antibodies against hCG. However A & B types of vaccines raised to the titres much higher than M formulation. The levels returned to less than 20 ng/ml at the end of 12 months suggesting the reversibility of this method. There were no serious side effects and no metabolic changes. The menstrual cycles were normal (25-35 days) in 90% of the patients.

The vaccine is now in phase II trials for efficacy studies and after observation of nearly 800 cycles - no pregnancy has been reported (Personal communication - Dr. Talwar).

Similar studies on vaccines for fertility regulation are undertaken by WHO but we are in much advanced stage of development than the others.

## MALE FERTILITY REGULATION :

For men to have as wide a choice as women, however there is clearly a need for a greater variety of safe antifertility methods suppressing the spermatogenesis temporarily and without affecting their libido. Vasectomy and cardiovascular status, endocrine status, vasectomy and prostate function and immunology of vasectomy was evaluated by WHO centres.

Percutaneous Vas occlusion by special clamps - Chinese technique avoids even the skin incision - thus a nonsurgical technique.

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## HORMONAL SUPPRESSION OF SPERMATOGENESIS :

- 1) LH - RH analogues.
- 2) Long acting androgen supplements.
- 3) Androgen - Gestagens Combination.

Immunization against FSH (Inhibin) Gossypol.

## TUBECTOMY :

Tubectomy is the popular method in India and 60% women accept the method after completion of the family. Tubal ligation through laparoscope has made the process much simpler, and a "Camp Approach" is possible to offer this method to a large number of women. Fallopie rings are commonly used to occlude the tubes. This offers the advantage of possible recanalisation in future if required. Recently there has been an revival of interest in quinacrine pellets - Tubal occlusive agents offer a non surgical method. Two applications have given low failure rates.

The present strategy of ICMR/WHO is not to develop newer methods for Fertility Control, but improve the acceptance of existing methods and the continuation rates by proper counselling and motivation through the existing health delivery systems. Also stress is laid on evaluating the long term safety of the available methods.



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## REFERENCES

1. WHO Biennial report 1986-87
2. Special programme of Research, Development & Research training in Human Reproduction - 14th Annual report WHO - 1985.
3. ICMR yearly report 88-89
4. ICMR yearly report 89-90
5. ICMR yearly report 90-91
6. WHO yearly report 85-86
7. Proceedings of Joint Symposium organised by the ICMR/WHO at Bangalore 14-15 January 1985.
8. Proceedings of the 17th annual meeting of the Endocrine Society of India held in Bombay November 4-8 1986.
9. Indian Progress in Family Welfare --  
Proceedings of VII Indian Conference on Voluntary Sterilization & Family Welfare, Allahabad 24-25th September, 1988.
10. Lecturers in Contraceptive Pharmacology : by Ranjit Roy Chaudhury 1981.
11. ICMR report 86-87.
12. Psycho-social factor affecting family welfare by D.N. Kakan, B.N. Saxena, R.N. Gupta ICMR - 1982.
13. Contragestive & contraceptive potentials of Newly developed competitive progesterone Antagonist :  
Dr. Chander P. Puri IRR-ICMR, Bombay.
14. The Alan Guttmacher Institute - RU 486  
The Science & the Politics by Michael Klitsch.
15. Hormonal Fertility Regulation at the Cross roads -  
A short review of the potential of hormone antagonist PFA Van Look - Special programme of research,  
development and research training in human reproduction - WHO.
16. Contraception - January 1992, February 92, March, 92 May 92.

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# DEVELOPMENT OF CONTRACEPTIVE TECHNOLOGY

## an Indian scene

By  
V. P. KAMBOJ

High rates of population growth continue to be a major problem of the developing countries and despite world wide efforts in development of new contraceptive methods (immunological, chemotherapeutic and mechanical) no method comparable to the contraceptive pill (estrogen + progesterone combination) developed in the late 1950s and IUDs in early 1960s has emerged due to lengthy development procedures, rigid drug regulatory requirements and legal liability problems. Unfortunately, the urgency in the development of family planning methods has been diluted because the pharmaceutical industry due to cost effectiveness is now devoting very little effort to contraceptive development. Thus new contraceptive development needs to be undertaken more and more vigorously by universities, public sector organisations and voluntary agency institutions.

The research and development in contraception is a national priority area in India. Being time and cost intensive, the industry has shown no interest in this area. However, some national laboratories are engaged in new drug or vaccine development for contraception. The approaches being pursued are :

- (1) Postcoital contraceptives or anti implantation agents
- (2) Menses regulating agents/devices
- (3) Contraceptives for the male
- (4) Local contraceptives or spermicides
- (5) Natural products/traditional remedies for contraception
- (6) Contraceptive vaccines for the female and male

### (1) Postcoital contraceptives or anti implantation agents :

A systematic programme involving design and synthesis of new compounds and their bioevaluation for antiimplantation activity is ongoing only at the Central Drug Research Institute, Lucknow (CDRI). A number of weak estrogen cum antiestrogens have been found to exhibit antiimplantation or postcoital contraceptive activity in rodents, dogs and monkeys. Of these, Centchroman, due to excellent therapeutic index and safety profile was identified for development.

#### CENTCHROMAN :

Centchroman is the first nonsteroidal weekly pill introduced in the world. Unlike the existing steroidal pills, which prevent ovulation, centchroman does not allow the fertilized egg to attach in the uterus, thus avoiding pregnancy. The contraceptive efficacy is due to the unique combination of a weak estrogenic and a potent antiestrogenic property which inhibits the uterine preparation for nidation of the fertilized ovum as also slightly accelerates ovum transport and the resultant asynchrony further ensures prevention of pregnancy. The antifertility effect is readily reversible. The compound has been subjected to extensive safety studies in several species of laboratory animals. It does not produce teratogenic, mutagenic or carcinogenic effects and has an excellent therapeutic index.

In multicentric clinical trials, a total of 1957 women of reproductive age have been covered for over 21,000 months of use and no side effects have been observed so far. About 1,600 women have used 30 mg or other effective doses for nearly 20,000 months of use with excellent pregnancy protection (Pear Index 2.78); the Pearl Index is an



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indirect measure of contraceptive failure and a value of upto 6.0 is considered acceptable. The protection improve (Pearl Index 1.83) if during the first 12 weeks, 30 mg is given twice a week.

- \* The users experience no side effects except that about 8% of the menstrual cycles are of a longer than the normal duration.
- \* Intensive monitoring by clinical examination, haematology and biochemical tests as well as laparoscopy and ultrasonography examination of the ovaries and uterus have shown the drug to be quite safe.
- \* The drug does not cause nausea, vomiting, dizziness and breakthrough bleeding and has no effect on lipid profile and HDL cholesterol as is frequently seen with steroidal contraceptives.
- \* The babies born to user failures present normal milestones.
- \* The contraceptive effect is readily reversible and subsequent pregnancy is normal.
- \* The drug has also been found to be useful for the treatment of selected cases of breast cancer.

It has been marketed under the trade name Saheli by Hindustan latex Limited and would be introduced shortly by Torrent Pharmaceuticals Ltd., under their trade name. The Ministry of Health & Family Welfare, Govt. of India has approved its introduction in the National Family Welfare Programme.

## **(2) Menses regulating agents/devices :**

For menses regulation, only CDRI has an organised programme of synthesis and bioevaluation. The efforts are aimed to develop preferably a nonsteroidal compound with inert hormonal profile. A few compounds have been found to prevent pregnancy in hamster but the lead compounds showed inconsistent results in rhesus, monkey.

Abortion being legalised in this country, another approach being pursued is to develop aids for medical termination of pregnancy as a back up method for contraceptive failure. CDRI has developed undermentioned device, Isaptent.

### **ISAPTENT :**

Isaptent is an aid for the dilatation of cervix developed from the seed husk of *Plantago ovata* (Isabgol, psyllium) for use in Medical Termination of Pregnancy and other gynaecological and obstetrics procedures. The device ensure desired cervical dilatation within 4-6 hrs retains shape on swelling and does not tend to break. It provides self-lubrication, has no effect on vaginal flora and is free from side effects. It is marketed as a sterilized device under the trade name Dilex-C by Unichem Laboratories Limited.

## **(3) Contraceptives for the Male :**

No serious efforts involving design and synthesis of new compounds in any centre of the country have been made to develop contraceptives for the male probably because of large quantity of compound(s) needed for bioevaluation. CDRI too is persuing this approach at a low key and no lead for follow up has been identified so far. However, efforts of IIT, New Delhi in producing a reversible blockage of the vas deferens have met with some success in polymer SMA.

### **SMA :**

SMA is a local contraceptive being developed by a group of the Indian Institute of Technology and All India Institute of Medical Sciences, New Delhi. This involves injection of polymer Styrene Maleic Anhydride (SMA) in



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Dimethyl Sulphoxide. The polymer gels and blocks passage of sperms through the vas deferens and/or inhibits sperm fertilizing ability by lowering pH of vaginal fluid. It has been found to be effective in rat and monkeys and is safe in toxicity and teratogenicity studies in animals. It is currently under Phase-I clinical trial in India.

#### **(4) Local contraceptives or spermicides :**

In this area also, only CDRI has an organised programme for the design and synthesis of new spermicidal agents which unlike nonoxynol-9 are not pH-dependent for spermicidal activity. A synthetic compound (88/533) about 10 times more potent than nonoxynol-9 is under safety evaluation in animals. Evaluation of over 2000 terrestrial plants provided a viable spermicide in fruits of *Sapindus mukorossi* and its saponins have been incorporated into a cream, Consap, for development as a contraceptive.

##### **CONSAP :**

Consap is a cream incorporating the saponins of fruits of *Sapindus mukorossi* (soap nut, reetha) as a spermicide. The cream is instantaneously spermicidal and does not cause vaginal irritation in rabbit and rhesus monkeys and is safe in toxicity studies. On intravaginal use the saponins are not absorbed into systemic circulation. In the contraceptive efficacy trials in women volunteers, over 200 cases have been covered for nearly 1,000 months of use with a single pregnancy. The clinical efficacy studies are in progress.

#### **(5) Natural products/traditional remedies for contraception :**

Most of the work carried out in the country on Indian medicinal plants is for interceptive activity in the female with liberal supports from CSIR, ICMR, WHO and other funding agencies. 120 Plant species belonging to 103 genera and 54 families have been mentioned as emmenagogues or/and abortifacients in ancient India literature. Of these, 48 plant species covering 43 genera and 32 families have been tested for anti-implantation activity and 13 plants for abortifacient activity. In addition, 65 plant species belonging to 59 genera and 37 families not mentioned in the traditional literature have also been tested for antiimplantation activity. Plants evincing activity include 21 plants mentioned in ancient texts and 19 plants not listed in this literature. The interceptive activity reported in the same plant part by different investigators varies from inactivity to 100% activity. This appears to be due to inadequate attention given to proper botanical identification, seasonal variations and testing procedures. Promising activity was invariably associated with estrogenicity. In spite of intensive efforts, no plant showing antiimplantation/abortifacient activity without estrogenicity has yet been identified for development as a contraceptive in any centre in the country.

Recently, CDRI has initiated screening of marine fauna and flora for interceptive activity and some promising leads have emerged.

#### **(6) Contraceptive vaccines for the female and male :**

Three national institutes are concentrating on developing fertility regulating vaccines based on beta hCG, FSH, vitamin carrier proteins, zona pellucida, sperm antigens and inhibin. The interesting outputs are :

##### **ANTI-hCG VACCINE :**

Immunochemically purified beta hCG linked chemically to tetanus, diphtheria or beta-chain or cholera toxin per se or in combination with ovine LH is being developed as a contraceptive vaccine by the National Institute of Immunology, New Delhi. Immunization of monkeys and baboons with the vaccine prevents pregnancy. The endocrine, metabolic and organ functions are not disturbed. There is no evidence of the deposition of immune complexes in kidney and choroid plexus. The vaccine is devoid of gross pharmacological effects. It is safe in toxicity studies in animals and safety evaluation studies in human. Currently, it is under Phase II clinical trial for contraceptive efficacy.



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## ANTI-FSH VACCINE :

An anti-FSH vaccine utilizing FSH isolated from sheep pituitary by affinity chromatograph as an immunogen with Alhydrogel as adjuvant is being developed at the India Institute of Science, Bangalore for male fertility regulation. Immunization of bonnet monkeys with this vaccine causes acute oligospermia to azoospermia without altering testosterone levels or libido. It has been found to be safe in toxicity studies in animals and will shortly undergo Phase I clinical trial.

## Conclusion

Indian efforts in developing new contraceptive technologies have been very fruitful with a postcoital cum weekly oral contraceptive (Centchroman) successfully marketed, a spermicidal cream (Consap) and a vaccine for early termination of pregnancy (anti-hCG) in Phase-II clinical trials, an intra-vas deferens injectable (SMA) in Phase I clinical trial and a vaccine for control of fertility in the male (anti-FSH) entering Phase-I clinical trials.

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# The Discussion

## 1. Programme issues :

Ms. Sudha Tiwari initiated the discussion with some important programme issues. She first made the point that different couples have different contraceptive needs. Secondly, that each couple have different needs at different times. Therefore, a variety of methods should be available, this has been described in some of the papers as a "cafeteria approach". She emphasized the need for service providers to be well informed about the use and safety of the different methods, and the need for mid-level and policy level managers to be able to make well informed decisions. Supply of contraceptives needs to be guaranteed through Indian production. Many participants were surprised to learn that "Copper-T" is not yet manufactured in India. She advised that more information on the cost per couple protected by different delivery strategies, needs to be generated.

## 2. Method information

Ms Tiwari raised some specific issues about the different methods. With low dose oral pills, breakthrough bleeding can be a problem. She advised that the placebo pills included in some courses should be in the form of iron tablets. The triphasic pills described by Dr. Krishna would not be suitable for wide scale introduction in Orissa, she felt.

She informed the audience that the incidence of ectopic pregnancy is increasing, independent of IUD use. Therefore at the level of multipurpose worker the signs and symptoms of an ectopic pregnancy should be understood.

It was asked why the government supplied condoms, Nirodh, are unlubricated, when lubricated ones can provide better protection against sexuality transmitted diseases as well as pregnancy. The current information is that there has been a change in government policy and in future Nirodh will be lubricated.

## 3. Abortion

She raised some queries about the benefits and risks of RU486 versus surgical abortion. Dr. Krishna responded with evidence of the high acceptability of non-surgical methods of abortion amongst women in India. One participant asked why it should not be available over the shop counter, given that antibiotics are freely available without prescription. He asked if there is any danger to non-pregnant women taking the drug. Dr. Krishna replied that the principal danger is of incomplete abortion if taken after four months of pregnancy, and hence the need for professional regulation of the drug.

## 4. Training for family planning and level of delivery

An important issues about the quality of family welfare services delivered by multipurpose workers was raised. The questioner pointed out the high IUD dropout rate, asking how much is due to faulty insertion by the multipurpose worker? This in turn brought out questions regarding family planning training and the level at which services should be provided. Is it possible for a female, worker to perform an aseptic IUD insertion working by herself, assuming she has been adequately trained for the task? The obstetricians and gynecologists amongst the audience agreed that two persons are needed to insert an IUD safely. Using a uterine sound is not necessary and increases the risk of infection. "Multi-load" IUD has the advantage of involving less touch during insertion, but still requires two persons to insert it. Is then the female worker the appropriate level person to perform this task? If she is, can a TBA be brought into assist her? These were the practical issues that the programme managers were left to consider.



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## 5. Innovations in contraceptive technology

As well as examining how to improve implementation of the well established methods, the more recent contraceptive technologies were discussed. It was noted that the silastic implant in "Norplant" had caused problems for some women, plus the need for surgical removal limits the women's control over this method. The biodegradable implant is still some years from the market place. Despite these drawbacks the efficacy has been well demonstrated and one participant voiced his regret that there has been no proper public debate on Norplant due to a vocal anti-implant lobby. He challenged the participants to consider how such debate may be generated.

A question was asked about the success in developing contraceptive for men. The response was that no satisfactory male spacing method has yet been developed.

It was asked why "Dilex C" is not yet available in the market place, and when the weekly pill would be available. Dr Kamboj replied that the weekly pill will be available in the next couple of months. Another participant wanted to know if the weekly pill delays menstruation. Apparently 1% of women suffer delays in mensuration of up to 150 days. Dr. Krishna responded that delayed menstrual period generally has low acceptance amongst women, and also expressed her concerns that the antiestrogenic property of the pill may cause osteoporosis in the long term.

There was a lengthy discussion about the procedures a new method has to go through to reach the market place. One participant wanted to know from the forum what practical relevance these new technologies have for rural people of low literacy levels, given the current low acceptance of the existing contraceptive methods, and of spacing methods in particular. It was concluded that programme managers must be able to identify the family planning needs in the rural and urban areas and consider how the newer technologies in contraception can help to meet these needs, for example is a weekly oral pill more acceptable than a daily pill or a long-acting injectable? How does RU486 compare with surgical abortion in terms of feasibility, acceptability and cost effectiveness?

It had been pointed out that contraceptive services as delivered now, can only be considered a "cafeteria approach" for the health workers. As far as the client is concerned poor knowledge about different methods and limited access to services means there is little effective choice. Presenting the client with a real choice of safe contraceptives, through education and adopting a variety of delivery strategies, is the challenge for the programme managers.

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## **SOCIAL MARKETING APPROACHES IN CHILD SPACING**

**Mr. K. Gopala Krishnan & Mr. V. Chandrasekhar**  
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**Mr. Deepak Bhandari**  
Vimarsh Consultancy,  
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**Mr. C.V.S. Prasad**  
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### **CHAIRMAN**

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### **DISCUSSANT**

**Mr. Ian Pett**  
First Secretary  
Health Services Development  
British Council Division  
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# SOCIAL MARKETING

Mr. K. Gopalkrishnan and Mr. V. Chandrasekhar have narrated the concept of Social Marketing initiated by Government of India to popularize Family Welfare services. They have discussed the success of oral contraceptives and Nirodh Programme through the cooperation of commercial sector and voluntary organisations. To elucidate the Social Market concept as well as its feasibility and development, they have furnished the following materials.

## SOCIAL MARKETING (SM)

Using modern marketing techniques to persuade and motivate:  
and to make available within easy access concepts, practices or  
products of basic welfare value.

Potential channel for products :  
35 lakh commercial outlets

## SM NOT NEW IN INDIA

Nirodh programme of Government of India (GOI) : Oldest  
and largest in the world (350 million pieces 1992-93)

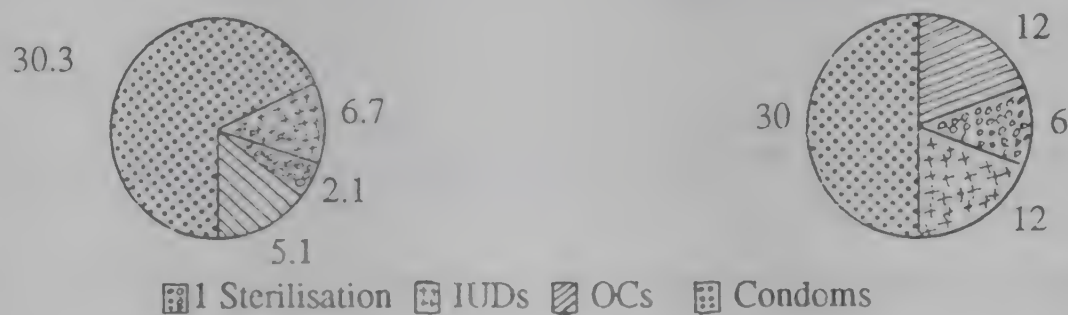
Government of India's added oral contraceptives in 1987  
(125 million cycles 1992-93)

Major private companies/  
voluntary organisations involved

- o SM does not replace but supplements GOI programme thru' health system
- o Mutual benefits between the two

## SUITABLE FOR SPACING METHODS

Fate of population control hinges on spacing methods



Condoms and OCs are socially marketable

## TWO MAJOR COMPONENTS

Distribution

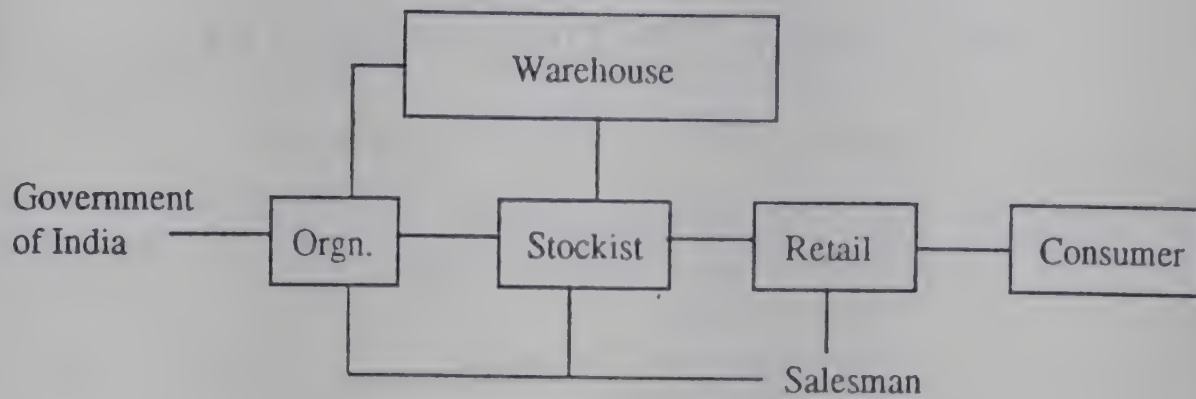
Communication

Synergy is the key

Marketing management essentially revolves around co-ordination between the two



## DISTRIBUTION



## COMMUNICATION

- o Persuasive communication which is non-didactic and based on consumer's perceptions and aspirations

- o Use of all available media

Reliance on market research

## PSI AS A TEST CASE

Nirodh, Masti, Pearl, AIDS Control projects

- o In contraceptive projects, 45 salespersons cover 50,000 outlets in 620 markets every month. Major use of mass media.

- o Use of mass and local media

Market research determines campaign themes, brand names, pack designs, information needs, apprehensions, evaluation

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## RURAL MARKETING NOT VIABLE TO COVER DIRECTLY

Special devices to tap dynamics of rural markets

- o Tie-up with beedi distributors
- o Audio-visual vans (Focus : Haats)
- o Video-on-wheels
- o Community-based distribution

Always more expensive



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# SOCIAL MARKETING FOR PROMOTION OF CHILD SURVIVAL AND SAFE MOTHERHOOD

By  
DEEPAK BHANDARI

The financial cost of providing family welfare services to the people has risen in the last decade and continues to outpace the resource availability. Allocation of resources by the Government and other countries has stagnated in real terms if not actually gone down.

This paucity of funds has resulted in deteriorating quality of family welfare services. The scarce resources are thinly spread over a vast infrastructure to service the entire people without consideration of their willingness or capacity to pay for these services.

UNFPA estimates for developing countries indicate that currently 63% - 75% of the cost of Family Welfare services is contributed by the Government, 15% - 20% by donor agencies and 10%-17% by the users.

In order to meet the growing demand for welfare services as well as to improve their quality, it is essential, not only to attract higher allocation of resources but also to ensure their more efficient utilisation and channeling to those who are in need.

Social Marketing can play an important role by attracting higher contributions from users who are capable to pay for the services thereby cross subsidising those who cannot. In addition the process of social marketing ensures an improvement in the quality of service delivered by integrating it with consumer demand using a systematic framework of sequential cycles made up of assessment, planning, pretesting, implementation, monitoring, evaluation and re-planning. Social marketing also ensures end use of socially beneficial products like contraceptives, etc.

Marketing is based upon the fact that people do give up old concepts or products in exchange for new products or ideas which offer them greater benefits. The challenge of social marketing is to identify and offer benefits which are felt to be tangible and wanted by the people in exchange for them to change their old practices or products. For example it is difficult to make people adopt preventive health measures like immunization because people feel that disease and death are remote possibilities most likely to strike others rather than them. On the other hand parents do fear the thought of having their child crippled with polio and having to support him throughout life. Therefore, the benefit of avoiding mental agony of a lifetime and not having to support a crippled child, is a benefit people can believe in, in exchange for immunizing their child.

As you know, in any marketing strategy there are five basic types of inputs called **Product, Price, Place, Promotion and Public Relation**. Social Marketing involves development of a carefully formulated mix of these five basic inputs designed for a specific target population as well as for a specific problem. This insight of social marketing should be kept in focus while developing any social marketing strategy appropriate for our situation, specially the rural situation. The right mix of the five marketing variables mentioned above can be derived through purposeful and intensive research and observation.

Successful social marketing strategies give maximum importance to develop a **Product** which is desirable to the target users and which they are willing to purchase. This is perhaps the most crucial as well as difficult aspect of a marketing strategy. It calls for research in terms of attitudes, opinion, knowledge, behaviour pattern, social customs etc. of the target users. For example in order to promote the concept of spacing between two children as well as to delay the birth of the first child, the produce or concept to be sold in a certain rural area may emerge to be a healthy child while in another area it may be a healthy wife. Once the product to be sold is clearly identified, it can be put into a payable package, in this case a condom, oral pill or IUD which becomes a means or process of acquiring the 'desired product'.



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The second input of **Price** offers a complex set of costs which need to be addressed in order to reduce them in relation to the benefits. These costs which make up the price a consumer pays are not only money costs but also opportunity costs, energy costs and psychic costs. Thus in the case of spacing contraceptives, besides keeping the cost of the contraceptive low enough to be within the purchasing capacity of a young, rural couple, it is also important to make it readily and conveniently available, thereby reducing opportunity and energy costs. It may also be essential to train and orient the retailers and service providers to be helpful, cooperative and discreet thus reducing the psychic cost to the user.

The third input of **Place** includes the sales force and the distribution system which provides a response channel through which motivation translates into action. In case of spacing contraceptives like condoms and low dose oral pills, reoriented and retrained Anganwari Workers, Mahila Mandal pradhans and owners of fair price shops may provide adequate and easily accessible distribution or sales outlets.

The fourth input of **Promotion** is one element of the strategy which most people believe social marketing is all about. It is an important element of the whole strategy in that it is the voice of the programme but we should not forget that it is only one element. It involves development, pretesting, implementation, evaluation and redevelopment of persuasion strategies which make the product familiar, acceptable and desirable besides creating a good image of the agency and thereby the product in the minds of the target population. Advertising, personal selling, publicity, sales promotion, customers service and after care are factors which need to be used in a balanced combination in the promotion effort keeping in view the product and target population in order to ensure cost efficiency and reduce wastage. For example, in the case of spacing contraceptives a marketing organisation must know when to shift from awareness creating techniques, like using television and print media to behaviour change measures like mobilising health service providers in the private and public sectors through reorientation and equipping to act as counselling agents and product sources specially in rural areas where mass media has little access in the real sense.

The fifth input is **Public Relations**. In the developing countries this element plays a critical role in making social marketing successful. These societies are traditionally well organised and work in an organised way - in terms of leadership - local opinion leaders, and change agents and administrative leaders (both formal and informal). In such situations any change can be introduced by working through these formal and informal groups existing in the societies.

These are some of the issues which must be addressed effectively while developing a social marketing strategy for any problem directed at any target population in the country.

## SOCIAL MARKETING PROJECT - MADHYA PRADESH

VIMARSH is trying a social marketing strategy to promote Safe Motherhood and Child Survival in Madhya Pradesh covering 11 PHC areas in Mandla, Narsinghpur and Jabalpur districts. It is a low cost social marketing approach which draws support from other family welfare programmes being implemented in the area. The strategies adopted in the project areas are as below :

The primary concepts identified to be sold to the people in the project areas were a healthy mother and a healthy child.

Following the well recognised and accepted principles of marketing, a rapid assessment survey was conducted to find out the main problems and factors responsible for preventable deaths among the mothers and new born children. The survey brought out several useful information on the nature, extent and prevalence of practices followed in this area by the local people. The following were identified as specified local needs in the areas of concern to the project.

1. Need for promoting concept of spacing of births.
2. Promoting greater use of well developed MCH infrastructure reaching upto village level.



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3. Greater useful contact between health workers and the mothers required properly equipping and training the health workers to render antenatal, natal and post natal care.
  4. Lack of information among target group 'why', 'how' and 'when' of immunization and of appropriate feeding practices of infants and child.
  5. Lack of conviction among women about the use of iron and folic acid tablets and getting tetanus toxoid injections.
  6. Presence of several unacceptable health practices and taboos surrounding delivery and feeding of infants.

The above specific issues helped in deciding problem specific IEC messages (for the target population and workers) and situation specific product and services (for the service receivers and providers) most needed. The general form of IEC messages selected were as below : These were developed in the form of coloured posters and handouts in understandable local language. For local adaptation pretesting was carried out.

General IEC messages for Social Marketing of the concept :

- \* Early marriage (before 18 years) increases health risks for both mother and child.
- \* The risk of death for young children increases by about 50 p.c. if the interval between births is less than two years.
- \* Having more than two to three children increases health risks for mother and child.
- \* Regular check ups during pregnancy by going to the nearest health worker reduces risks during child birth.
- \* Breast milk alone is the best possible food for the first four to six months of a child's life.
- \* By the age of four to six months, the child needs other foods in addition to breast milk.
- \* From birth to age three, children should be weighed every month. If there is no weight gain for two months, something is wrong.
- \* Immunization protects against six dangerous diseases.
- \* All immunization should be completed in the first year of the child's life.
- \* Married women between the ages of 15 and 44 should be fully immunized against tetanus.

The next step in marketing involves identification of specific products and services required by the target population and identifying training of service and product providers. The following services/products were identified to be used in the first phase.

1. Promoting clean delivery and developing simple clean cord delivery kit. Clean delivery was assessed in the rapid assessment survey as one of the most pressing needs in the project.
2. Related to this was identifying village level local groups and train them in making indigenous clean kits.
3. Training village level official and non official workers in the use of clean kit, immunization, ORS and infant feeding.

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4. Promoting institutional delivery services for clean delivery for extremely poor mothers.
  5. Developing and providing locally understood and acceptable IEC materials.
  6. Equipping the service providers and service centres to be able to render ANC, natal and PNC services. In the survey it was found that because of the lack of technical facilities most of the services were not provided by service providers and service centres.
  7. Developing and promoting use of locally improvised cheap transport for shifting emergency cases to the nearest service centres.

In the marketing strategy the following target population was identified :

1. Official :
  - All State and District level health officials.
  - Government officials of other related departments.
  - Official village level health workers (PHC & SC, anganwadi workers, school teachers, village level rural development workers).
2. Non Official :
  - People's representatives of different levels.
  - Press.
  - Members of Cooperative societies.
  - Women's organisations.
  - Mahila Mandals.
  - Youth clubs.
  - Dais.
  - VHGs.

## PRICE

In social marketing pricing of products and services is very critical. As a social service, pricing is subsidised normally to a certain extent. Advantage of this was taken in this project by integrating services like providing contraceptives, immunizations, ORS and technical equipments with the official free service and product delivery infrastructure. This was supplemented wherever necessary.

The indigenously produced clean delivery kit was priced by cooperatives and local mahila mandals at cost price plus a little margin. This price was fixed at Rs.3/- which is within the limit of expenditure the poorest of the poor make during delivery in the project area.

The development of indigenously designed transport facility for emergency was achieved by a contribution of Rs.2/- from each household of the pilot village. The Red Cross has now subsidised this to make it mechanised.

Psychological cost in terms of time, inconvenience, difficulty in dealing with official health service providers was reduced by increasing the accessibility of services almost at the doorstep of the mothers.

The chances of dissatisfaction with the services was reduced first by training the service providers and secondly by ensuring minimum essential technical items and medicines.



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## PLACE

The place or service delivery centres and personnel identified to provide these benefits were : A) TBAs, B) MPWs (M&F), C) Sub-centres, D) LHV's, E) PHCs, F) CHCs, G) Medical Officers, H) District Hospital.

Varying types and levels of services and products were provided at different service delivery centres and with different service providers.

## PROMOTION

The promotion aspect of the strategy involved the following components :

1. Reorientation, in-service training and equipping of service providers to enable them to not only feel responsible for the general well being of the mother and child but also enabling them to provide services in an integrated manner as far as possible at the village level using once a month visit schedule. The services provided by the MPW (F) at the village level are General Check up, urine testing, haemoglobin testing using Tallquist booklet, tetanus toxoid injection, immunization of children, advice concerning nutrition, breast feeding and supplementary foods, treatment of common gynae complaints, complaints of children, ARI detection and treatment, advice on prevention of diarrhoea and its treatment, supply of ORS packets, referral and follow up of at risk or high risk cases. Besides this the MPWs (F) also supervise deliveries specially the difficult ones.
2. Adoption of once a month visit schedule to the village as a 'Shishu Rekshak Mela' day and using the occasion to display health education materials like pictorial charts and talks by the multipurpose worker to various interest groups to promote the products and concepts identified in the programme.
3. Orientation training of service providers of other development programmes to motivate and enable them to act as promotion agents. School teachers, Angan Wari Workers, Mahila Mandal members, workers of other voluntary organisations working in the area, adult literacy programme workers as well as VHGs, panchayat members were given intensive training in phases and then equipped with health education materials like pictorial charts, hand bills, etc. to make the promotional effort a people's own movement.
4. All TBAs in the project area are trained and equipped to provide clean delivery services using the safe delivery disposable kits which were supplied free of cost for first six months as a promotional effort. Each TBA is also involved in all phases of services delivery starting from registration of pregnancy till the last vaccination of the child. All TBAs in the project area are equipped with Salter type weighing equipment to weigh the newly born and trained to take necessary and timely action in case of low birth weight babies.
5. All TBAs are equipped with picture post cards of a child crippled with polio and talisman bearing the slogan 'polio'. After delivery, the TBAs in project area show the picture postcard to the mothers and tie the talisman on the arm of the child to act as a reminder that the child has to be vaccinated.
6. To promote the concept of prevention of diarrhoea, use of ORS and early detection of ARI, a Systematic awareness programme directed at school children is going on in the project. It is called 'Padho aur Padh kar Sunao' programme. Talks are organised in each school where in first phase the senior most classes were taken up and thereafter the programme moved to junior classes. The children are invited to read aloud a pictorial leaflet with some important messages regarding diarrhoea, its prevention, identification, treatment, identification of ARI and its treatment. They are asked to take home the leaflet and read it aloud to all members in their household.
7. ORS preparation competitions organised in Mahila Mandals after demonstration talk in previous month. Awards given to women who prepare correctly as well as quickly.

8. Selected sub-centres in each PHC area upgraded to institutional delivery centres specially for destitute or nomadic women.

## PUBLIC RELATION

It was realised right in the beginning of the project that this project would be primarily a welfare project and quite different from economic projects depending upon their self generated resources for expansion and growth. It will be necessary therefore, to have strong public resource contacts and support for successfully implementing any social marketing scheme in the area of safe motherhood and child survival.

Therefore, special steps were taken to take along the highest to the lowest health authorities of the state in legitimizing planning, implementation, monitoring, evaluation and feed back processes. Both official and non official persons and organisations directly or indirectly concerned with these activities were invited and approached for contribution in their areas of knowledge speciality and authority. To name a few, The Health Secretary, all the concerned District Collectors, Chief Medical Officers, District Women and Child Officers, District Immunization Officers, MEIOs, Public Relation Officers, Principal and trainees of the HFWTC and District Centres, Commissioners of all divisions, Mahila Mandals, Panchayats' Cooperatives, School teachers, Dais, AWWs, and VHGs were approached and all of them helped as per their capacities.

The benefits which the project could give to the people who were till now devoid of health and MCH facilities has been very boldly and clearly recognised in official records and public press.

As a matter of fact the project is being replicated by other local authorities on their own and hundreds of official and non official workers of these areas have been trained by the project till now. In order to maintain and meet the demand of support and technical guidance of the replicating agencies, the VIMARASH project has started a quarterly news bulletin of the project, produced a film on the project, prepared training manuals and standardised production of indigenous materials necessary in the project. Because of all these, the project has received a strong public relation support which has proved a major factor in its success.

### COMPARATIVE STATUS OF SALE AND ACCEPTANCE OF CONCEPT AND SERVICES DURING ONE YEAR PRECEDING THE START OF THE PROJECT AND DURING SIX MONTHS OF THE PROJECT

ACTIVITIES	YEAR PRECEDING THE START OF THE PROJECT	DURING 6 MONTHS OF THE PROJECT (MAY - OCT. 91)
* No. of Dais trained under previous GOI Dais training scheme	751	696
* Were TBAs supplied with disposable clean delivery kits ? How many of them got such kits ?	NIL	696
* Number of disposable kits supplied	NIL	5712
* Was dai paid the reporting fee of Rs.3/- per delivery case ?	Only at 1 PHC reported	Yes (in all PHC areas)

Contd ...



* Did the TBA inform ANM to come and supervise the delivery conducted by her ?	Never	Always (as far as possible)
* Did the TBA :		
A) actively help in promotion of immunization for children and pregnant mothers.	Sometimes	Always
B) weigh the baby after birth and inform ANM about under weight babies	Never	Have started doing so
C) tell about ORS to women of her village	Sometimes	More often (in camps and competitions)
D) bring women for delivery at the sub centre	Never	Sometimes

#### AT SUB CENTRE LEVEL

* Is the sub centre equipped for routine investigation during ANC check up ?		
A) Urine examination for albumin	Very few	Most of the sub centres
B) Urine examination for sugar	No	Yes, all sub centres
C) for HB testing	No	Yes, all sub centres
* Does ANM educate the mothers about 'High Risk' conditions ?		
* What education aid she has :		
o Flip book	No	Most frequently now
o Posters	No	Most frequently now
* Are there any deliveries taking place at sub centres	No	Now they have started

Contd ...

* Is there opportunity for her continuing education to update her knowledge and skills	No	Yes
* Is B.P. apparatus and weighing machine available for antenatal check up ?	Yes, at one SC only	Yes, at one SC only
* Is weighing machine available for growth monitoring of child	Yes, at 4 sub centres in a PHC	Yes in 94 sub centres
* Does the ANM screen malnourished children and refer them ?	Yes, at one PHC only	Yes in all SCs of PHCs.
* Does ANM get sufficient supply of medicines to render services satisfactorily.	No	Yes
* Does trained dai assist ANM in her MCH and F.P. work ?	No	Yes
* Is there effort to work collaboration with AWW ?	Yes, in one PHC area only	Yes, whenever required in all PHC areas of the project they work as a team.
* Has AWW been given orientation ?	No	Yes
* Has she been given educational material ?	No	Yes
* Has the medium of school children been used for relay of health education messages directly to the mother	No	Yes

SOME OF THE SERVICES AVAILED IN THE PROJECT AREA (May - Oct.91)

SERVICES	NUMBER OF PERRSONS
Deliveries conducted by trained dai with C.C.K.	3114
Two injections of tetanus toxoid given.	2842
HB testing done for A.N.C.	925
Urine exam for A.N.C.	1885
Iron and Folic Acid tablets given	3114



**FOUR MONTHS F.P. AND IMMUNIZATION ACHIEVEMENTS IN ONE PROJECT  
PHC AND IN ONE NON-PROJECT PHC**

F.P. METHOD		PROJECT PHC ACHIEVEMENT (GOTEGAON)	NON PROJECT PHC ACHIEVEMENT (DHAMNA)
Sterilization		486	531
IUD		513	290
Oral Pill		358	88
Condom		667	543
IMMUNIZATION			
DPT	Ist dose	1871	1343
	IIInd dose	1274	1503
	IIIrd dose	1203	2052
	Booster	704	177
	Ist dose	1871	1340
	IIInd dose	1274	1503
	IIIrd dose	1193	2012
	Booster	685	117
BCG	--	2332	1365
Measles	--	1393	1251
TT (mothers)	Ist dose	598	764
	IIInd dose	936	614
	Booster	284	41
		15638	14022

The experiences and achievements of the project indicate convincingly that use of social marketing as an alternative approach can certainly promote contraceptive use and use of MCH services in the programme.

This conviction born out of actual work has convinced VIMARSH about its preparedness to extend this approach to include other products and concepts crucial for achieving the goals of the health and family welfare programme in a relatively short period of time.

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# SOCIAL MARKETING APPROACH IN CHILD SPACING

By  
MR. CVS PRASAD AND  
DR. UV SOMAYAJULU

## 1.0 Introduction

The Social Marketing Programme, launched for the delivery of Government of India promoted brand of Condom viz. Nirodh is now 25 years old. The programme envisages involvement of leading marketing companies to participate in the sale of subsidised Nirodh through their distribution network. Besides Nirodh, overtime, the government introduced few more brands viz. Nirodh Deluxe, Super Deluxe Nirodh etc. and programme has been extended to all over India, with the help of the companies and a couple of NGOs. As a result the sales through shops has gone up from 15.7 million in 1968-69 to 320 million in 1990-91 and declined to 250 million in 1991-92. We might also say that the Condom usership was increased almost three times due to the commercial distribution for about two thirds of the users are purchasing condoms from the market at national level (ORG 1990). With such a measure of success in case of 'Nirodh', this approach was extended to oral pills in 1987. Four pharmaceutical companies were involved in the social marketing of Mala-D, one of the two brands of contraceptive pill promoted by the government. The other brand Mala-N was supplied under free distribution scheme. Parivara Sanstha took up the Social Marketing of Oral Pills in Haryana under the brand name ECROZ. Since launching of the programme, there has been gradual increase in the number of cycles sold. Encouraged by this, the government of India has been seriously considering to keep the weekly pill "Saheli" under social marketing programme.

Though the Family Welfare Programme is centrally sponsored, the state is the implementing agency and it has to own the responsibility for the success or failure of the programme. In view of this the states are now a days showing considerable interest to explore several ways and means to streamline the programme and making it more innovative and result oriented. Towards this Orissa government is trying to understand the role of Social marketing programme for spacing methods. In this context this paper attempts to make an assessment of the current status of the condom distribution programmes in this state and its potential.

## 1.1 Data

Data is mainly taken from (1) III All India FP Survey sponsored by Ministry of Health and Family Welfare and conducted by Operations Research Group, in 1988-89; (2) the Retail Store Audit data generated by ORG under Syndicate Research and (3) the census volumes pertaining to All India and Orissa for the years 1981 and 91.

## 1.2 ORISSA - A Scenario

The State of Orissa with 13 districts had a population of 31.5 millions as on 1st March 1991 (Table 1). The state accounts for 4.74 percent of the total land area and 3.73 percent of the total population of the country. The decadal growth rate of the state's population during 1981-91 was 20 percent which is less than the national growth rate. Only 13 percent of the state's population lives in urban areas. In terms of demographic indicators, the state had 4th highest death rate (11.6 in 1990) and highest IMR (123 in 1990). The crude birth rate was 30 which was close to that of national average (about 30). On the socio-economic front, the state is characterised by low levels of literacy, per capita income, agricultural returns and poor communication facilities. 23 percent of the population belong to ST while 15 percent belong to SC. Percentage of population below poverty line during 1987-88 was 38 percent in the state which is higher than the corresponding figure for the country as a whole (29 percent). The mean age at marriage for females was 19 years as per the 1981 census. Thus Orissa is one of the socially and economically backward states of India.



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### **1.3 No. of Eligible Couples, Percent Sterilised and estimated Potential Couples Available for the Programme in Orissa**

According to an estimation, there were about 5.3 million currently married couples in the state as on March 1992 and in case of about 60 percent of the couples, the wives were aged below 30 years. Every year the net addition to the eligible couples was about 85,000.

As per the official statistics as well as III All India FP Survey about one third of the currently married couples were sterilised. However, this proportion was lower (19 percent) among younger couples. Thus there were 2.6 million young and non-sterilised couples in this state, who could have been motivated for temporary methods. Against this only 0.31 million were currently using any modern temporary method. Again as per some evidence not all of them were using for spacing purpose.

### **1.4 Reasons For Low Acceptance of Spacing Methods**

When such is the potential for promoting the modern temporary methods, the reasons for the low acceptance of these spacing methods could be partially explained from the fact that IEC activities were not very sound as could be evidenced from the following analysis.

#### **1.4.1 Low Level of Awareness of Spacing Methods and Low Levels of IEC Activities :**

Table 2 shows that 53 to 55 percent of couple were aware of the three modern methods viz. IUD, Condom and Pill. However, those who had correct knowledge as to how to use or apply the method was know to not more than 38 percent in case of Condom and 12 to 14 percent in case of IUD and Pill. When we compare with those of all India, Orissa was 5, slightly lagging behind particularly in case of Condom. The Couples have admitted that not more than 26 percent of them were exposed to FP messages through any mass media (ORG 1990). From this it appears that both government efforts as also the social marketing programme, which seemed to have increased the awareness of different brands of condom in other parts particularly in the north Indian states, has not made much headway in this state.

#### **1.4.2 Negative Perceptions :**

About one fifth of those who were aware of IUD were of the opinion that this method has got after effects (Table 3). The corresponding proportions for Pill and Condom were 11 and 5 percents respectively, while more of the remaining were not sure whether the method has got any problem or not. This also corroborates our above observation that there were no committed efforts to provide information to the needy people.

#### **1.4.3 Accessibility of the Spacing Methods :**

It will be very interesting to note that even in rural areas of the state, slightly less than 10 percent of the couples, who were aware of spacing methods reported that the methods were available beyond 5 kms.

### **1.5 Contraceptive Prevalence Rates for Different Spacing Methods and Source of Supply**

Though the overall usership of spacing methods is very low, it will be interesting to observe as to what is its break-up by method, what is its source of supply, how far the commercial supplies are contributing to the acceptance of spacing methods. In the following paragraphs an attempt has been made to look into the above aspects.

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### 1.5.1 Method wise Break up :

In this state out of every 100 currently married couples, about 2 were using IUD, three condom another two pill (Table 4). The corresponding figures for All India were 2, 5 and 1 respectively.

### 1.5.2 Source of Supply for Condom and Pill Users :

In this state about half of the pill users and forty one percent of condom users were depending upon commercial sources such as shops, while the remaining were getting free supplies from government sources such as PHC/SC/District or Taluka hospitals. Further analysis by rural urban background of the users shows very contrasting situation in rural and urban regions. While the free supplies were reported by more than 90 percent of the condom users and two thirds of the pill users in rural areas, it is just other way round in the urban areas, where more than 85 percent of pill and condom users were purchasers (Table 5).

## 1.6 The Profile of Pill and Condom Users

Though the method wise usership is very low, it will be important to know that as to who were using the pill or condom and who were depending upon commercial sales or in other words what was the type of penetration and whom the commercial distribution was reaching is required to be known to stream line the delivery system. The analysis is presented in Tables 6 to 7.

### 1.6.1 Settlement type :

Both pill and condom users were predominantly belonging to either towns or bigger villages/PHC/SC villages (Table 6). A further analysis of the data by source shows that Condom distribution particularly through commercial channels has not yet reached significantly, the remote and smaller villages (Table not presented).

### 1.6.2 Family Income :

In this state it was estimated that about two thirds of the couples had monthly income less than or equal to Rs.1000 (ORG 1990). On the other hand about 60 to 70 percent of pill and condom users were belonging to the income class of Rs.1000 and above on the average, the Condom purchasers reported highest monthly income (Rs.2169), followed by pill purchasers (Rs.1451).

### 1.6.3 Education of User Couples :

There was no single illiterate husband, whose wife was using pill. More or less same is true with condom also. As a matter of fact by and large the users belonged to the class of people who had at least high school education.

As regards education of Wife of the user couples while 57 percent of wives in the general population were illiterate (ORG 1990), only 30 to 35 percent of pill or condom users belonged to this group (Table 6). The educational levels are much better among those who are depending upon commercial supplies than that of free supply users both in case of pill and condom (Table not presented).

### 1.6.4 Age of Wife :

On the average the pill users (Mean 30.5 years) were significantly older than the currently married couples (mean 28.5 years) (ORG 1990). However, the condom users were much younger than the general couples. Thus the age structure of pill and condom users seemed to be different (Table 7). However there was no relationship between age of user and source of supply (Table not presented).



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### 1.6.5 No. of Living Children :

Consistent to the above the mean number of living children were significantly higher for pill users (3.1) compared to the condom users (2.6).

### Desire for Additional Children :

Table 7 shows that 42 percent of the Condom users and 31 percent of the pill users did not desire for additional children. This ascertains the fact that a good proportion of couples have been using the two spacing methods viz. Condom and Pill for the purpose of controlling births and not for spacing.

## 1.7 Condom and Pill off-take

We have seen in the earlier sections that the commercial distribution was a major source of supply for both condom and pill users, more particularly in urban areas and for the pill. ORG retail store audit data shows that in this state like in many other states of India, there was an upward trend in the condom sales over the last four years (Table 8). When we compare the commercial distribution figures for Orissa with those of East zone it looks that overtime this state had an edge over the average state of this Zone with respect to sale of the two contraceptives.

A further analysis of the sales data by brand showed that Nirodh Deluxe was topping the list followed by Nirodh (Commercial) and Kohinoor (Table not presented). In fact the competition seemed to be between Nirodh Deluxe and Kohinoor in this state. Some imported brands also have been gaining reckonable place in the market over the years (Table not presented).

In case of pills, according to available ORG's retail store audit estimates for the last four years (1989-90), its sales were also on increase (Table 9). With the introduction of brands like Ovral-G, Ovral-N, Noveless, the total market has gone up considerably. Earlier Mala-D was the main or the only brand in the market, but the above brands have become its contenders in recent times in this state also like elsewhere in India.

## 1.8 Discussion

The above analysis and findings suggest that out of 5.3 million couples about slightly less than half of them might be considered as potential for promoting the spacing methods. Currently the acceptance of temporary methods was very low. The problem of unawareness and lack of proper perceptions and appreciation about the spacing methods besides the accessibility were perhaps mainly responsible for such low acceptance of the methods.

In Orissa the proportion of couples exposed to any mass media was not more than 40 percent (ORG 1990) and obviously among the lower income and poor people who constitute two thirds of the total population, the level of exposure was much lower than among those couples belonging to the high income groups. Hence first attempts should be made to increase the accessibility of media itself if one wants to use these mass media. Otherwise culturally acceptable and more accessible media, if already inexistence should be identified.

In this state free distribution is mostly confined to rural areas that too PHC/SC villages, while the commercial supplies were mostly confined to urban areas and to some extent bigger villages. Thus the remote and smaller villages which account for about 70 percent of the total population seemed to have not yet been adequately covered by both free and commercial channels.

An analysis of the profiles of current users of Condom and pill indicates that the users were belonging to socially and economically better society and a good proportion of the users were using these methods not as spacing methods but as birth control methods.

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There seemed to be social marketing programme which has made some headway and the sales of condom which were on increase in recent times, though still there is much scope for improvement. The companies which are participating in the promotion of condom sales in the state according to available information were 'Reliance Bulk Drugs' and 'Hindustan Level' under social marketing and TTK under commercial sales. The brands which were in wide circulation were Nirodh Deluxe, Nirodh and Kohinoor. Similarly pill through commercial sales was on increase, with introduction of brands like Ovral-G, Ovral-N, Noreless.

However, due to paucity of data it is not known who and how many are stocking Condom, what are their profiles with respect to place, type, turnover category and whether they have any POP materials, supply position their perceptions about stocking condoms/pills etc. It is also not known about the kind of publicity, media selection, people's perceptions particularly among tribals who constitute a good proportion about the medium, advertisement campaigns etc. Towards this it is suggested that some quick market research studies may be undertaken in the state. Some qualitative and quick studies using FGDs can be launched to understanding the key issues involved in streamlining the social marketing program for promoting child spacing methods in this state.

## 1.9 Suggestions

More meaningful recommendations/suggestions can be drawn on the basis of market research studies as suggested above. However, the following approaches may be suggested on the basis of results discussed in this paper.

1. The social marketing companies should design rural oriented programmes.
2. The advertisement campaigns should also be entrusted to the marketing companies and they have to make every effort to attract younger couples.
3. The ISM and Pvt. doctors should be inducted into the social marketing program for distributing/selling pill and condom after due orientation training.
4. Taking cue from the fact that Nirodh deluxe and Kohinoor are mostly accepted brands, lubricated condom may also be introduced into free distribution.
5. The level of exposure to mass media is low in this state due to perhaps problems of accessibility and poverty. Community TV may be promoted as a part of IEC activities.
6. As suggested some quick and qualitative market research studies may be conducted to get the retailers' and users' perspectives and perceptions about the programme.



**Table 1 : Demographic and Socio-economic Profile of the State**

Indicator	Reference Year	Orissa	All India
Total Population (Million)	1991	31.5	844.3
Decennial Growth Rate (81-91 in %)	1991	20	24
% Urban	1991	13	26
Density/sq.km.	1991	202	267
CBR	1990	30	30
CDR	1990	12	10
IMR	1990	123	80
CPR	1990	41	43
Literarcy Rate (7+)			
Male	1991	62	64
Female	1991	34	39
% of SC Population	1981	15	16
% of ST Population	1981	23	8
Per capita income (Rs.) at current prices	1988-89	2438	3835
Gross area irrigated as % of Gross Cropped area	1984-85	20	31
Per hectre value of Agrl. output (Rs.)	1985-86	2704	3547
% of Villages connected with all weather pucca roads	1987-88	15	41
Total PHCs, SCs & CHCs/ 1 lakh Population	1987	22	22

Source : As given under References

**Table 2 : Knowledge of Spacing Methods**

Method	Percent of "R"	
	Awareness	Having correct knowledge
<b>Orissa</b>		
IUD	55.1	14.4
Condom	55.2	38.2
Pill	52.7	11.5
<b>Total N ('000s)</b>		<b>4919.8</b>
<b>All India</b>		
IUD	55.4	19.1
Condom	66.3	45.6
Pill	59.8	28.0
<b>Total N ('000s)</b>		<b>134174.7</b>

Source : III All India FP Survey, ORG 1990

**Table 3 : Percent of 'R' Perceiving Disadvantages for Different Spacing Methods\***

Method	Percent of Respondents	
	Orissa	All India
IUD	20.4	24.2
Condom	5.0	8.0
Pill	10.8	15.1

Source : III All India FP Survey, ORG 1990

\* Among those who were aware of the method

**Table 4 : Contraceptive Prevalence Rates for Different Spacing Methods in Orissa and All India**

Method	● Orissa	All India
IUD	1.8	1.9
Condom	3.2	5.3
Pill	1.8	1.4
<b>Total N ('000s)</b>	<b>4918.8</b>	<b>133963.5</b>

Source : III All India FP Survey, ORG 1990

**Table 5 : Source of Supply for Pill and Condom Users in the State of Orissa**

	Pill			Condom		
	Rural	Urban	Combined	Rural	Urban	Combined
Government	65.9	14.3	49.1	91.9	5.2	58.9
Commercial	34.1	85.7	50.9	8.1	94.8	41.1
<b>Total N</b>	<b>42519</b>	<b>20618</b>	<b>63137</b>	<b>90166</b>	<b>55347</b>	<b>145513</b>

Source : III All India FP Survey, ORG 1990



Table 6 : Socio-economic Characteristics of Users

	Percent of Users of	
	Pill	Condom
<b>Type of Settlement</b>		
PHC/SC	27.8	21.4
Other	39.5	40.6
Town	32.7	38.0
<b>Family Income (Rs.)</b>		
<1000	39.9	3.3
1000 +	60.1	71.1
Mean	1202	1577
SD	715	1033
<b>Education of Husband</b>		
Illiterate		3.3
Primary	26.3	20.3
Middle	23.8	11.3
Higher Sec.	31.0	31.5
University	18.9	33.6
<b>Education of Wife</b>		
Illiterate	35.4	30.1
Primary	38.4	22.9
Middle	13.0	17.1
Higher Sec.	11.8	24.2
University	1.3	5.7
<b>Total</b>	<b>63137</b>	<b>145513</b>

Source : III All India FP Survey, ORG 1990

Table 7 : Demographic Characteristics of Pill Users

	Percent of Users of	
	Pill	Condom
Age of Wife		
15 - 24	12.8	37.7
25 - 34	52.8	51.2
35 +	34.4	11.1
Mean	30.5	26.8
SD	4.9	5.9
No. of Living Children		
One	21.3	37.0
Two	21.4	21.6
Three or more	57.3	37.6
Mean	3.1	2.3
SD	1.9	1.6
Desire for Additional Children		
Yes	69	58
No	31	42
Total	63137	145513

Source : III All India FP Survey, ORG 1990.

Table 8 : Condoms Off-take-Urban

(in '000)

Year	Total Volume		Orissa
	All India	East Zone*	
1988	250,693	44287	7502
1989	260,062	44529	8286
1990	325,044	56756	17490
1991	279,172	48793	12986

Source : ORG Shop Audit

\* Bihar, Orissa, assam, West Bengal & NE States

Table 9 : Pills Off-take - Urban

(in '000 Rs.)

Year	Total Value		Orissa
	All India	East Zone	
1989	4891	1144	81
1990	12113	3304	151
1991	13672	4202	302

Source : ORG Shop Audit



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## REFERENCES

- Census of India, 1991 Provisional Population Totals Rural-Urban Distribution, Series 1, India, Paper 2 of 1991.
- CMIE 1987 District Level Data for Key Economic Indicators with 70 Maps Economic Intelligence Service, Centre for Monitoring Indian Economy, Bombay.
- Govt. of India 1991 Family Welfare Programme in India Year Book, 1988-89, MOHFW, New Delhi.
- Indian Banks Association 1989 Rural Development - Selected Statistics, IBA, Bombay.
- Operations Research Group, 1990 Family Planning Practices in India, III All India Survey, ORG, Baroda.
- Operations Research Group 1988-1991 Reports of Shop Audit, ORG, Baroda.
- Registrar General of India 1990 Sample Registration System Estimated Birth and Death Rates (Provisional Tables), RG of India, Vital Statistics Division, New Delhi.

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## The Discussion

Mr Ian Pett opened by raising three important areas for discussion :

1. **The delivery question** : How to reach and meet unmet demand for contraception ?
2. **The IEC question** : How to generate additional demand for contraception ?
3. **The economics questions**
  - \* How much of our resources is it worth spending on measures to avoid unwanted pregnancies in society ?
  - \* How much is it worth spending on social marketing, per a couple protected, compared with other strategies?
  - \* What do we mean by a “sustainable” programme ? Is it financially self generating or simply one that government can afford ?
  - \* What can government afford, and what are people willing to spend ? That is, what is the potential for cost recovery ?
  - \* Does social marketing increase total contraceptive use, or simply lead to brand substitution ?

The discussion which followed brought out the following points in favour of social marketing :

Social marketing can promote a greater contribution from users towards the cost of products, from the sector of the population who can afford to pay. That is, it does present an opportunity for cost recovery from health programmes. Experience in India has shown that social marketing can generate new demand, not just for contraception but for other health promoting products such as the “Clean Cord Kits” described by Deepak Bhandari. It has also been demonstrated that social marketing can improve the reach of services beyond the government sector.

The potential problems of introducing Social Marketing of contraceptives into Orissa was also considered.

- \* If social marketed contraceptives are to be sold by the health workers for profit, what will be the effect on their distribution of free contraceptives ? Is a dual system compatible ? If she is officially allowed to sell some products or services, how will this effect her image as a “free” health person ?
- \* The pragmatists in the audience felt that the boundaries between “free” and “charged” services within the public sector are already blurred, so that there would be little added confusion by a single worker selling some contraceptives and giving others free. Different packs should be used so that it is clear to the client which product he is getting.
- \* The sustainability of the social marketing projects the capacity of the agency to sustain after the initial phase of financial assistance from Govt./Doner agencies needs to be thoroughly examined before launching large scale social marketing projects.



**31 July 1992**  
**Friday**

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**ROLE OF NGOs & COMMUNITY BASED  
CONTRACEPTIVE DISTRIBUTION SYSTEM**

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# ROLE OF NGOs IN MOTIVATION OF FAMILIES TO ACCEPT CHILD SPACING METHODS -- CINI, A CASE STUDY

By  
DR. SHISHIR K. SENAPATI

Voluntary Organisations were active in the birth control movement in India long before family planning programme became a government sponsored programme. They are involved in every possible way so as to complement governmental efforts to promote family welfare programme. Lately in 1986 the Government of India in its comprehensive national population policy emphasised the need of maximum involvement of non-governmental organisation (NGO). The policy commitment was because of government's recognition of the efficiency and potential of the NGOs to promote family welfare program on voluntary basis and convert it into a people's movement.

Analysis of the family planning programme with its changing approaches since its inception revealed that despite massive programme expenditure, the outcome in terms of decline in birth rate & decadal growth rate and increase of couple protection rate is not encouraging. The existing strategy of catching elderly couple for sterilisation operation to chase the target at the primary health centre (PHC) level has been found ineffective to bring about demographic change. Hence, it is cause for concern whether or not we could achieve the demographic targets set by us for "Health for all by 2000 A.D." This has led us to confront with two situations :

- i) Is it that demographic indicators set for achieving "Health for all by 2000 A.D." unrealistic with the existing approach and can never be achieved within 8 years.
- ii) or the existing technology vis-a-vis approach not being effective and we have to look for some miracles.

My contention is that we, the health providers have inadequate knowledge about the people for whom the technology was aimed at. We failed in our approach to make the technology subservient to the people as well as services "User friendly". Taking a cue from the above statement I would like to present a case study of a NGO which exemplified the success of family welfare programme.

## 2. About CINI :

CINI-Child In Need Institute has been involved in providing community based integrated mother and child health services since 1975 in 76,000 population in 40 villages of south 24 Praganas district in West Bengal. Until 1989 the focus of MCH services was on antenatal care, preventive, promotive & curative services to under 5 years children and nutrition rehabilitation of malnourished children through hospital, clinic and domiciliary approach. Over the years MCH services has been integrated with health inputs like pre-school education, installation of low cost chullah and sanitary latrines, child sponsorship programme, income generation programme for women, women's organisation, etc. As such, there was no direct family planning services provided to the people except health education and individual motivation to adopt a small family norm. Lately, since 1989, services related to spacing methods has been provided with motivational effort.



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### **3. Project Area Profile :**

About one third of the population are Muslims. Schedule caste constitutes 70 percent of the Hindu population. Forty percent of the families are landless and the same proportion are marginal farmers. In terms of economic indicators like housing, land holding, occupation, family income and calorie adequacy, half of the population lived under difficult circumstances. The project area of 40 villages are under the jurisdiction of two primary health centres. The baseline survey in 1988 revealed that only 24 percent of the eligible couples were practising some sort of F.P methods during the period of survey. Nineteen percent of them have already adopted permanent methods and the remaining 5 percent were on different spacing methods. The use of oral pills topped the list of the spacing methods and the users have received services either from the indigenous practitioners or from the pharmacy shops on their own. The contribution of PHC in providing spacing methods was negligible. The survey also highlighted enormous unmet needs of the people. Lack of awareness about different spacing methods, ineffective health care delivery services by PHC field level workers, elderly women's influence on younger couple's fertility behaviour and gynaecological morbidities were some of the attributable factors for people's incontinence to adopt family planning methods.

### **4. Approaches Adopted :**

Based on the findings of the baseline survey CINI initiated started providing direct services related to spacing methods and motivating the selective couples to adopt permanent methods at the PHC. It was based on the assumption that the PHC would be unable to satisfy the immediate unmet needs of the people specially with reference to spacing methods because of its lack of potential for providing follow up services and motivating the couples. It was also decided that strategy for awareness generation and motivation should be accompanied with provision of services at the clinic level as well as domiciliary level through village level workers. Different strategies adopted for motivation are as follows :

#### **4.1 Awareness Generation :**

Public Awareness Team (PAT) has developed relevant drama, street play, songs and posters for dissemination of information about different F.P. methods and its beneficial effects as well as side effects. Camps, exhibitions and stalls at melas were organised at different parts of the project area with the help of school teachers, opinion leaders, mohila mondal members and youth club members. All these were directed to raise mass and to create a body of knowledge in the community.

#### **4.2 Orientation of Community Member :**

School teachers, opinion leaders, youth club members, indigenous practitioners and mohila mondal members were given 1-2 day orientation training. Lecture, posters, models were adopted as training methodology. Care was taken to make it more participatory.

#### **4.3 Training of Village Level Workers :**

The Parivar Kalyanis (PK) were given a 3 day training programme at CINI by the lady doctor, social worker and supervisor. The training was aimed at imparting some technical knowledge and improving their skills for follow up action maintenance of records.

#### **4.4 Family Level Motivation :**

Motivation of the couple at the family level was done by the PKs who are incharge of 100 - 120 families. In fact, these PKs are women from the same village selected by the mohila mondal. Majority of the PKs are above 35 years of age, married and illiterate. They are paid a monthly honorarium of Rs.100 through mohila mondal. The PKs were instrumental in motivating the couple for adopting F.P. methods, following up the couples at their home at regular interval, distributing oral pills and condoms and keeping necessary



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records. Pictorial sheet was used by the eligible couples for adopting spacing methods and to collect monthly information from the users. For any complication or side effects following use of spacing methods, PKs either impart health education or refer these cases to village health post/CINI's main clinic. The PKs also identified the resistant cases to be motivated by the supervisors or doctors.

#### **4.5 Group Discussion and Counselling :**

The PKs sometimes used the motivated F.P. acceptors to motivate the resistant couples. They were invited to mohila mondal to share their experiences with the resistant mothers. Mohila mondal members very often make joint effort to motivate the resistant cases through group discussion and individual counselling under the guidance of the supervisors. Elderly women (mother-in-law) and husbands who were opposed to adoption of F.P. methods by younger women were provided regular counselling by the supervisors and doctor either at home level or at village health posts. Muslim religious leaders were contacted and motivated by social worker/doctor/health supervisor regarding beneficial effect of small family norm on mother's health as well as child's health through repeated personal interactions.

#### **4.6 Curative Services and Follow up :**

Curative services was provided for associated gynaecological morbidities to any user as soon as it was reported either by PK or the user. Similarly many women were treated first for their gynaecological morbidities being motivated to adopt copper-T/oral pills. Proper follow up care and advice was given at the domicilliary level by PK, at the village health post by the supervisor and at the clinic by the doctor.

#### **4.7 Referral Services :**

Demotivation amongst the users was prevented by taking care of failure of spacing method (resulting in conception) through proper referral services to district health centres for appropriate action. Immediate follow up action was taken up by Public Awareness Team, PK and supervisor for disseminating correct information to other couples about probable failure of each F.P. methods through drama, street play and interaction with mohila mondal members.

#### **4.8 Management Information System :**

Development of management information system (MIS) enabled the information to flow from PK to project co-ordinator level and vice-versa and helped to know about user's profile, complication of any user, change of one method to another, dropout/attrition, failure of spacing methods and to identify resistant couples. This intum strengthened the health care delivery system and made the service "user friendly" preventing demotivation.

#### **4.9 Logistics :**

Replenishment of oral pills and condom at regular interval prevented dropout and demotivation.

### **5. Out-Come :**

Since service related to spacing methods were introduced after 14 years of implementation of an integrated community based MCH care services, the result in last 3 years was very encouraging in terms of acceptance of the programme. The proportion of eligible couple practising any sort of F.P method has risen from 24 percent to 49.5 percent by the end of March 1992.



**Table 1 : Yearly coverage of various F.P methods**

F.P Methods	Y	E	A	R
	1989-90*	1990-91*	1991-92*	
Cu. T	412 (23.2)	576 (20.0)	748 (19.9)	
Oral Pill	895 (50.3)	1177 (47.8)	1800 (48.0)	
C.C	278 (15.6)	474 (16.4)	594 (15.8)	
Ligation	193 (10.9)	453 (15.8)	608 (16.3)	
Total	1778 (100.0)	2880 (100.0)	3750 (100.0)	

\* Cumulation of quarterly coverage at the year ending.

The distribution of different methods in Table 1 highlighted the emphasis on spacing methods. The proportion varied between 84-90 percent of the total users.

5.2 The cumulative drop out from using different spacing methods has declined from 15.3 percent at the end of 1st year to 6.8 percent at the end of 3rd year. However, the dropout from use of condom and oral pills was significantly higher than Copper-T.

5.3 Amongst the users of spacing methods about 59 percent couple has two or less living children. The distribution of couples (parity 2 or less) with respect to practice of different methods were 76.1, 62.2 and 48 percent for Cu.T, oral pill and conventional contraceptive respectively.

5.4 The birth rate was 26.7 and the infant mortality rate turned out to be 60.

## 6. Problems :

Since the programme was very much integrated with MCH care and women's reproductive health was taken care of while providing services for spacing methods, we did not face severe problem in implementation. Despite the fact the following problems were encountered by us while motivating the use of family spacing methods :

- 6.1 Cultural beliefs regarding detrimental effect of different spacing methods.
- 6.2 Opposition from elderly women and husbands.
- 6.3 Improper follow up of users for side effects/complication following adoption of F.P method.
- 6.4 Opposition from indigenous practitioners against Copper-T use giving disinformation to the Copper-T users regarding its complications.
- 6.5 Irregular and short supply of oral pills from Dist. health centre.

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6.6 Exacerbation of gynaecological morbidities following use of Copper-T and oral pills.

6.7 Failure of spacing methods - resulting in conception.

The above experience of CINI in motivating the eligible couples for adopting spacing methods highlighted the result of a multipronged approach of integrated MCH services and community participation. This could not have been achieved if women's reproductive health had not been brought under the purview of the programme as gynaecological morbidities is one of the important demotivating factors for continuing spacing methods. Although CINI's approach was directed more towards women, it has initiated a process to involve the male counterpart to the possible extent. But given the social structure we have long way to go i.e. to involve the men equally that of women for spacing and limiting their family size. Despite the poverty situation of the project area, CINI has been able to make a dent in the fertility behaviour through its effective health care delivery system. It would not be difficult to replicate CINI's experience elsewhere with a conviction to work.



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# ROLE OF NGOs IN COMMUNITY BASED DISTRIBUTION SYSTEM

By  
Ms. SUDHA TEWARI

## INTRODUCTION

This seminar, although national in nature, is expected to lead to development of a strategies and to a result oriented programme frame-work suited to the future needs of Orissa. Therefore, this paper discusses the need for Family Planning and Community Based Distribution with particular reference to Orissa. Unfortunately, due to unavailability of data on NGO's working in Orissa or willing to extend their work here, only a broad plan of action has been suggested. This and other aspects would need to be refined after an overall policy decision is taken by the State Government and ODA programme officials.

## ORISSA AND NEED FOR A SUCCESSFUL FAMILY PLANNING PROGRAMME

Orissa, with a population of 31.5 million is the 7th largest state in India. It has an unfavourable sex ratio for women at 972 and an extremely low literacy rate of 48.55% compared with the national average of 63.86%. The literacy rate for women is only 34.4% and 10.7 million women in the rural areas are illiterate. 37.9% of the population is below the poverty line, ranking it the second highest state in the country. Its more predominately a rural state even when compared to the all India average with 86.6% of its population living in the villages.

The growth rate in Orissa at 19.5% is below the national average. This is because the birth rate per 1000 is 30.2, just lower than the national average, but the death rate is alarmingly high at 12.6% compared to the national average of 10%. In particular, its high maternal mortality rate and the highest infant mortality rate of 122 in the country are of great concern. As a result demographic misery is intense in Orissa.

Efforts are on to reduce the death rates in Orissa through an integrated primary health care services, launched with the assistance of Overseas Development Administration, U.K. and other on going projects of the Government of Orissa and the private sector, including NGO's. As a result, the death rates are expected to come down to national averages in the short term. Also, such a programme is likely to substantially increase the growth rate in this state, resulting in a quick increase in total population unless commensurate efforts are made to bring down the birth rates through acceptance of family planning methods which is currently only 41%, well below the national average of 44.4%. Otherwise, with a poor economic and social gain and the severe poverty in this state, the "demographic trap" as described by Dr. Maurice King is likely to set in. With the population stuck in the trap, Orissa may find itself in an unsustainable state with a high birth rate and death rate, with ever increasing pressure on its resources, and with a rapidly deteriorating environment. In the absence of the State's ability to fully harness social and economic gains to the reduction of poverty and the promotion of socio-economic development, direct input from family planning programme emerges as critically important.

Also, in order to improve maternal and child health, its extremely important to intensify use of family planning methods so that too frequent and too soon pregnancies can be provided. In a situation where early marriages are common, its important to delay the first pregnancy to 20 years. Avoidance of too late pregnancies is also extremely important. These situations require a mix of both spacing and terminal methods of family planning so that the needs of couples at different stages of their fertility cycle as well as individual personal requirements\preferences can be fully satisfied.



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The contraceptive prevalence rate in Orissa is currently 41%. Of these, terminal methods account for 31.3% and spacing methods only 9.7%. These must be increased to 40% for terminal and 20% for spacing methods, if the target of 60% couple protection is to be achieved by the end of this century and fertility rate brought down to 2.3. In addition, the emphasis will have to be shifted to younger and low parity women also so that as a result the fertility rates in the State actually decline. This does not mean that sterilisation, an extremely cost effective and convenient method for those who have completed their families and the age of at least two children or as desired are above 3 years, can be neglected. All spacing methods available in the country will be required which could include Intrauterine Devices, Oral Contraceptive Pills, Condoms, Injectibles and Norplant.

The above is not an easy task as in a recent study on Family Planning Practices in India, sponsored by MOHFW, GOI, it was revealed that 26% of the eligible couples in Orissa with 1-2 child still desire more children as compared to 22.6% on All India basis. Hence, a greater emphasis on F.P. Education, particularly interpersonal contact with the eligible couples is important to persuade them regarding the advantages of a 'small family' norm and adopt family planning. For this method wise information will have to be intensified, high quality services provided and contraceptives made more widely available. Both clinic based and non-clinic based services are necessary for stepping up of the adoption of F.P. in this state.

## COMMUNITY BASED DISTRIBUTION

Particularly in Orissa, where over 86% of its population live in the rural areas and trained health personnel such as doctors, nurses and midwives are in short supply and as a result the ratio of doctor to population is very low, it is the greatest challenge to reach the rural poor who live in far-flung villages, widely separated by fields, mountains and rivers, and where transportation is poor. One solution is to supplement the family planning programmes by the use of the non-clinical resources through what is known as Community Based Distribution (CBD) programmes or sometimes also called Community Family Planning Services.

This community based distribution has as its objective the extension of family planning services and supplies beyond the clinics. This can bring them directly into the daily lives of the people, where they will be available to everyone. The extension of services through such programmes reduces the reliance on clinics and broadens service delivery. This is frequently done by employing staff who do not necessarily have previous medical training, but who have a well organised back-up referral system. Thus, currently the C.B.D. resources being mobilised range from the use of village or household points to the commercial marketing industry.

Social Marketing is now a familiar word and the biggest success has been in distributing contraceptives. Several successful projects are currently on in countries such as Bangladesh, Columbia and Egypt where they service 30% of current FP users. In India too, the Contraceptive Social Marketing Programme of GOI which now includes "branding" by NGO's such as Parivar Seva Sanstha (Marie Stopes) and Population Services International has helped to provide information and contraceptive supplies to millions of people in the country.

Social Marketing is using the proven tools of commercial marketing (i.e. techniques, mass media and existing commercial channels) for high efficiency, low cost delivery of vital social needs. It is heartening that GOI in its recent policy on FP has emphasised the need for social marketing programmes. Orissa must also take a lead in adopting this important strategy.

Social Marketing has now become quite sophisticated and many variations have been introduced in these projects. As in commercial channels of marketing, products are being sold through the retail or through door to door coverage. The former today denotes a typical CSMP programme whereas the latter is now described as a CBD programme. Nevertheless, there is a close interaction between these two types of projects. Often, an intensively covered CBD programme in phases introduces Depots and thereby continues to expand its coverage and finally culminates into a retail programme. On the other hand, a CSMP programme for better coverage (particularly where there is a tremendous consumer resistance or where data, both medical and marketing are inadequate as in case of OCP's) introduces a CBD element in its marketing. Our organization, Parivar Seva Sanstha is familiar with both the aspects.



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## HOW A CBD WORKS ?

Information regarding well carried out CBD programmes are available from several countries including Korea, Columbia, Philippines, Thailand, Nepal and India.

The implications of an experimental project in Cheju, an island province of South Korea is potentially valuable to family planning programmes in all countries. When the project began in 1975, Cheju had the lowest use of contraceptives in all of Korea and higher fertility than the rest of the country. By placing family canvassers closer to the population (some 365 village level women canvasser being responsible for only 900 to 1300 people, about 150 of whom were at the risk of being pregnant) couples were contacted and motivated to accept contraception for family planning. Under the supervision of the township-level family planning field worker, the canvassers operated out of their homes and were placed in charge of contraceptive distribution in the villages in which they lived, and in nearby villages. Also, they referred clients for IUD insertion or sterilization to a medical clinic. During the project, contraceptive use increased and fertility declined more rapidly in Cheju than elsewhere in the country. By the end of the project in 1980, fertility in rural Cheju, where the programme was most successful, was lower than in the rest of South Korea.

In India, most of the lessons have been learnt from the following programmes :

- \* Family Planning Association of India and Banaras Hindu University's collaborative rural CBD programme in Varanasi District, UP.
- \* Parivar Seva Santha's urban CBD project in Delhi's two slums with inputs from FPIA, Bangkok.
- \* Parivar Seva Sanstha's rural CBD project in Haryana.
- \* Christian Medical Colleges rural CBD project in Southern India with FPIA inputs.
- \* A rural CBD project in Manipal, Karnataka.

There are variations in each of the programmes, but the key elements and lessons from a CBD project are as follows:

- \* there is always an "E" (education) before "D" of CBD.
- \* availability of regular commodity supply-either donated or purchased, a must since supply break-downs can lead to loss of client confidence.
- \* emphasis on non-clinic spacing methods such as condoms, pills or spermicides. Offering a contraceptive method mix within one programme allows the CBD worker and the client to determine which contraceptive is best suited to the client's needs, and to provide alternative methods if the contraceptive originally selected proves not to meet changing needs. In addition to contraceptives, ORS and delivery kits can very well be added to a CBD Project.
- \* a network for referring clients for availing clinical spacing method (eg IUD), terminal methods, abortions, infertility and gynaecological treatment.
- \* coverage of a population of almost 10,000 - 20,000 (ie eligible couples) by one Field Worker/Field Organiser, supported by a team of volunteers or canvassers feasible. Units of 10,000 population being served by a team of 10 field workers appears feasible if geographical dispersion is not very wide. Thus, depending on the infrastructure available, several such units could be taken up.



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- \* developing a well-trained cadre of workers prepared to deal with unexpected situation and with the demands of their role to be emphasised. Initial training and subsequent retraining very important, which must be practical and based on the clear understanding of the programme and must take into account the varying capabilities of the workers. The problems of the field situation must be included, including its solutions.
  - \* a good organizational support and an intensive monitoring and supervision is a key factor in successful CBD programmes. Ideally, supervisors should have had field experience in the type of work being performed and should be accessible on a regular basis. Regular meetings between supervisors and field workers a must.
  - \* preparing a check list for screening of clients by the CBD workers based on known health risks in a given population is necessary. Existing check lists could be modified to serve local needs. CBD workers must have appropriate training to master the check lists, to interpret the findings accurately, and to direct clients to appropriate alternatives.
  - \* a CBD project involves intensive work by the canvassers. Every household must be contacted, couples must be registered who are in the childbearing years, and the registration list must be kept up-to-date. The client cards must be maintained so that re-supply can be done at an appropriate time. For this, an excellent information and tracking system is essential.
  - \* it's more important to retain an acceptor and reduce dropouts rather than emphasise number of acceptors as it's easier to recruit new acceptor.
  - \* Number of contraceptives sold is not critical as long as the servicing of each client is regularly maintained.
  - \* couples from a lower socio-economic status in urban areas provide a better response. The overall response from the rural areas is normally encouraging.
  - \* payment of a nominal charge for the contraceptive ensures its usage, attaches a better value to the product and provides a small margin to the canvasser, increasing the possibility of a better distribution. Also, it reduces total reliance on funding sources.
  - \* linkages with a retail programme or establishment of depot holders can help the programme to further expand and also continue beyond the funding period.
  - \* a project period of 5 years or longer with a phasing programme and an expanding component desirable. This includes the developmental stage, which could be longer for a NGO, unfamiliar with such a project.

## METHODOLOGY IN ORISSA

The identification of the areas where such projects would be useful and also which could provide a model for others to emulate could be decided as a policy.

In the 13 districts of this State, it is suggested that in addition to the rural areas, cities with a population of 200,000 and above (Cuttack, Bhubaneswar, Rourkela, Berhampur) should also be selected so that the people from the lower socio-economic strata in these cities could be included. This will have the advantage of percolating the ripple effect to several districts since these people would have their kith and kin in the villages.



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Selection of areas would have to be followed by listing the NGO's available in this state or willing to work here who would be in a position to carry out such a programme. Depending on their present or selected area of operation, CBD project areas could be allotted. Since this will be a new venture by the Orissa Government, selection of areas initially in places where primary health care facilities are available would be an advantage.

The above two decisions on the area and the NGO selected would naturally be intermixed. After this, on the spot evaluation in the field will be necessary so that feasible project proposals are drawn up by the NGOs with intensive support from the professional health personnel conversant with such a scheme. All other routine steps in awarding the contract would then take place, always keeping in view the need to be helpful to the NGO's in terms of the governmental procedures or it is likely that many a NGO may decide not to participate at all. Therefore, a supportive role from the programme implementers is a must.

Parivar Seva Sanstha is keen to participate in such a venture the details of which could be worked out. The PSS project could well help to establish a pilot in the state, based on which further CBD projects could be evolved. Moreover, such a project could also serve as a training unit for other projects in the state.

## CONCLUSION

It is possible to have a successful family planning programme in Orissa, if the Ministry of Health and Family Welfare is willing to try new programmes that improve services to the people. One such new programme is community based distribution. The goal of this programme is to change the behaviour of the population in the area such that they will eventually be prepared to actively seek out their own supplies and be prepared to pay a nominal charge. However, this change cannot be brought out by the NGO's in a hurry and will require considerable support and patience from the health officials in the government. The impact, nevertheless will be lasting, create a "ripple effect" and result in fertility reductions.

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## REFERENCES

1. Family Planning Handbook for Doctors, International Planned Parenthood Federation, IPPF Medical Publications, 6th Edition.
2. Community based Contraceptive Distribution : A Korean Success Storey, Asia - Pacific Population & Policy, December 1987.
3. Anubhav - Experience in Community Health - Community Based Distribution Programme of Family Planning Association of India and Banaras Hindu University.
4. Health is a sustainable state - Maurice King in the Lancet September 1990 and the Editorials "Nothing is unthinkable".
5. Community Based Distribution : the distributive potential and economics of a social marketing approach to family planning, Dr. T.R.L. Black, 1976.
6. Family Planning Practices in India, 3rd All India Survey, Vol.II.
7. Evaluation & Intelligence Division of Ministry of Health & Family Welfare, Government of India.
8. Census of India, 1991, Registrar General and Census Commissioner, India.
9. Family Planning Community Based Distribution in Delhi - Parivar Seva Sanstha (Proposal, on going MIS and project reports).
10. Findings of the Focal Research in the state of Haryana being conducted by Parivar Seva Sanstha.



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## The Discussion

This session was chaired by Dr. James R. Kirkland USAID, New Delhi. Discussion was initiated by Mr. Nilim Baruah. He raised some important issues that he felt should be considered in the ensuing discussion.

- \* The first point that he raised was, "Should NGOs be given family welfare priority?"
- \* The second question, "Can NGOs give family welfare priority?"
- \* "In order for fertility reduction, is it necessary for poverty to be dealt before introducing family welfare programmes?"
- \* The fourth issue which tied is up with "can NGOs given family welfare priority", is that for most of the NGOs, health is only a small part of their activities. If they do not have the technical expertise, can they really play a role in promoting and delivering contraceptives?"
- \* Nilim's fifth point was that women's control over their own fertility is limited. The challenge therefore is to create a dialogue between men and women.

His opinion on the first issue is, yes, NGOs should give family welfare priority, but not in the regions of Orissa where extreme poverty exists. In these areas programmes to promote general economic development are probably necessary before concentrating on family welfare programmes. Therefore, when the government, and NGOs themselves, plan to introduce innovative family planning schemes, area selection should be based on economic status, and begin in the better-off areas. Nilim reiterated Ms. Tiwari's point, that measures of fertility are more important than couple protection. His final point was that sustainability of impact is required.

The discussion was thrown open, and the ensuing points centred around 3 principal areas. These were :

1. Defining the distinctive nature of NGOs
2. Cost of delivering services
3. Training, supervision and quality of services

### 1. The nature of NGOs

One participant defined the distinctive nature of NGOs as being firstly that they want to do things, that is, they are self-motivated and do not just respond to instructions laid down mostly from above. Secondly, they may be better organized though this may in part be a function of their size. The third point was that NGOs are often or should be closer to the community than govt. and therefore in a better position to understand the real needs and perceptions of members of the community.

### 2. Cost of service delivery

These three factors may make NGOs more effective in delivering contraceptives to the people than government. However, service delivery is a costly exercise and it was questioned whether NGOs can meet the high recurrent costs of service provision. Community based distribution is a labour intensive exercise. Ms Tiwari was not able to give the exact cost of a CBD, per a couple protected, in their rural projects, but she informed the participants that for one lakh population, a rural project cost 5 lakhs per year. Until we have better information on cost effectiveness in terms of couples protected or births prevented, it is difficult to compare the different ways of delivering contraceptive services. The cost of service provision will vary depending on population distribution, economic status, educational status and other variables. However, many participants were keen to point out that the question of the best way of delivering services, should not blur the much broader issue of the cost to society of failing to provide adequate services.

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### 3. Training

In the areas of training, Dr. Senapati was asked to respond to a question about the short period of training given to the village health workers in CINI's Project. These village level health workers received only 3 days training compared with one-and-a-half years that ANMS under go. The motivation of the CINI workers is reported to be good, whilst motivation of the ANMS poor, despite their long period of training. What may explain these differences ? Dr Senapati identified the fact that their project health workers come from the communities in which they work, as the key factor explaining their better morale. Their communication with the village people is through pictorial information and the health workers are encouraged to use their own strategies of how best to get the message across to the people.



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# *Children by Choice not Chance*